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IIT-Kgp set to make a global mark

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Kharagpur, 5 November

In a unique academic leadership programme, IIT Kharagpur will now invite professors and scholars from foreign universities besides offering joint PhDs with top international institutes to support students and scholars for international exposure.

This will not only boost exchange programs and research activities but will also help the institute to make its presence felt strongly across international academia.

Under the Shri Gopal Rajagarhia International Programme, which was launched today, at least ten professors from some of the world's leading universities would come to the Kharagpur campus each year for few months.

Similarly, around 30 talented international scholars would be invited every year to conduct research activities at IIT, said the institute's Director Partha Pratim Chakrabarti.

He said they are already in talks with leading universities from the US, Europe, Australia, and



Japan. Under the joint PhD programme, students would be awarded with the doctorate by IIT-Kgp and an international university.

The institute's distinguished alumnus Gopal Rajagarhia of the 1968 batch has donated Rs. 10 crore for funding the initiative.

"I was always keen to give it back to IIT. Its international ratings are poor because of low international exposure. With this program, we want the IIT to make its presence felt in the international arena so that its ranking improves as per our Vision 2020," Mr Rajagarhia said.

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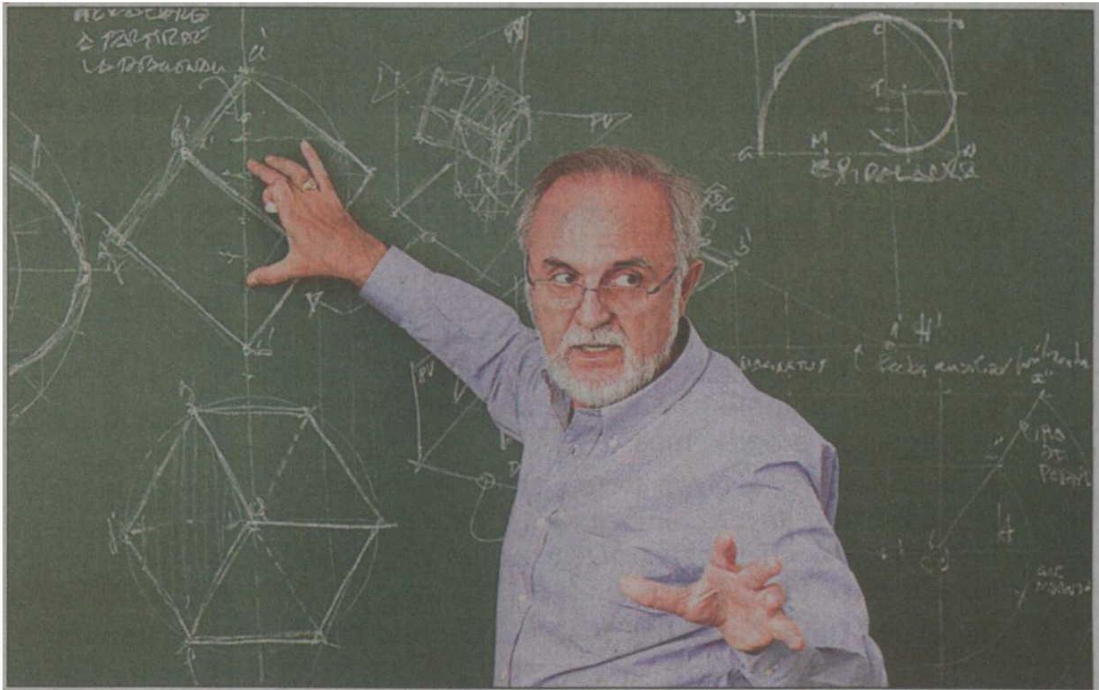
PhDs are awarded by the IIT each year and hope to take it to 400. "We want around 25 per cent of PhDs to be joint PhDs. We will also be getting foreign students to study here for such joint PhDs," said Mr Chakrabarti.

Recently, IIT, KGP has launched the unique International Summer and Winter Semester programmes wherein students and faculties from India and abroad are participating.

Besides student and faculty exchange, the institute has launched the M N Faruqui Innovation Centre (MNFIC) today in the presence of Shri Arjun Malhotra who made the seed funding for this centre. Several other alumni were present during this program.

Among several objectives, the Center will focus on supporting the creation and operation of an academic organisation within IIT Kharagpur in which students would be able to work in interdisciplinary groups to work towards novel and efficient solutions for well-known, substantial and contemporary technical challenges.

HT.COM ND 06/11/2014 P-10



■ The international programme will start from January next year

THINKSTOCK

IIT Kgp invite scholars from foreign varsity's

Press Trust of India

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IIT Kharagpur goes global, to offer joint PhDs

PRESS TRUST OF INDIA

Kharagpur

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SETTING AGENDA

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Besides student and faculty exchange, the IIT is also adding an international component to its courses by offering micro specialisations with a foreign collaborator. They have started the summer/winter programme wherein students and faculties from India and abroad are participating.

Virat Vaibhav ND 06/11/2014

P-16

शोध को प्रोत्साहन देगा आईआईटी खड़गपुर

भाषा

खड़गपुर (पश्चिम बंगाल)। भारतीय प्रौद्योगिकी संस्थान (आईआईटी) खड़गपुर शीर्ष अंतरराष्ट्रीय संस्थानों के साथ मिलकर पीएचडी देने के साथ ही अब विदेशी विश्वविद्यालयों से प्रोफेसर एवं विद्वान भी लाएगा। बुधवार को शुरू किए गए श्री गोपाल राजगढ़िया अंतरराष्ट्रीय कार्यक्रम के तहत हर साल दुनिया के प्रतिष्ठित विश्वविद्यालयों से कम से कम दस प्रोफेसर कुछ महीने के लिए खड़गपुर परिसर में आएंगे।

आईआईटी खड़गपुर के निदेशक पार्थ प्रतिम चक्रवर्ती ने बताया कि इसी प्रकार हर साल करीब 30 मेधावी अंतरराष्ट्रीय विद्वान आईआईटी में शोध



करने के लिए बुलाए जाएंगे। उन्होंने बताया कि इस संबंध में आईआईटी खड़गपुर की अमेरिका, यूरोप, आस्ट्रेलिया और जापान के प्रतिष्ठित विश्वविद्यालयों के साथ पहले से ही बातचीत चल रही है। संयुक्त पीएचडी कार्यक्रम के तहत विद्यार्थियों को आईआईटी खड़गपुर और किसी अंतरराष्ट्रीय विश्वविद्यालय द्वारा संयुक्त

○ हर साल करीब 30 मेधावी अंतरराष्ट्रीय विद्वान आईआईटी खड़गपुर में शोध करने के लिए बुलाए जाएंगे

रूप से डॉक्टरेट की उपाधि प्रदान की जाएगी।

चक्रवर्ती ने कहा, 'विद्यार्थी दोनों स्थानों पर पढ़ेंगे। विदेशी विश्वविद्यालय के साथ मिलकर अंतरराष्ट्रीय कार्यशाला एवं गतिविधियां आयोजित होंगी। अंतरराष्ट्रीय कार्यक्रम जनवरी के सत्र से शुरू होंगे।■

IIT prof shows how to generate power from non-edible oilseeds

NANDINI GUHA

KOLKATA: IIT (Kharagpur) professor and scientist Hifjur Raheman has been looking for eco-friendly alternatives to fast depleting fossil fuels like coal, oil and natural gas for the last decade but has recently hit upon a formula for generating power from non-edible oilseeds like jatropha.

Just appropriate for use in the farm sector, Raheman's discovery has hit the headlines in the Journal of Fuel but the professor from IIT



KGP's Agricultural and Food Engineering Department is yet to apply for a patent from the Government of India. However, his

Gassification of the seedcake can generate electricity, which can translate into both mechanical as well as electrical power. I have submitted my findings to DST

**HIFJUR RAHEMAN,
IIT-KHARAGPUR PROF**

experiments with production of bio-fuel from seeds was acknowledged way back in 2003 (and patented by him). Since then, Prof

Raheman has been working on a DST (Department of Science and Technology) project to find a way for generating electricity from seedcake – a finding which could easily be used to lighting up rural homes in India. 'Gassification of the seedcake (a by product of bio-diesel) can generate electricity, which can translate into both mechanical as well as electrical power. I have submitted my findings to DST', Prof Raheman told *Millennium Post*.

The whole process really

sounded quite simple when the professor explained it to *Millennium Post*. Initially it meant procuring non edible seeds (like jatropha), extracting oil from it and processing it to impart fuel-like or burning properties. 'The process involves adding some chemicals, all of which can be completed within six hours. During this process, free fatty acids are removed. Bio diesel is the end product and is extremely useful for the rural, agrarian sector of India', says Prof Raheman.

इस कदम से सामरिक महत्व की खोजों को बढ़ावा देने में मिल सकेगी मदद

डीआरडीओ मिलाएगा आईआईटी संग हाथ

नई दिल्ली | मदन जैड़ा

प्रधानमंत्री नरेंद्र मोदी के मेक इन इंडिया कार्यक्रम को आगे बढ़ाते हुए रक्षा अनुसंधान एवं विकास संगठन (डीआरडीओ) ने अपनी प्रयोगशालाओं के दरवाजे आईआईटी के शोधकर्ताओं के लिए खोलने का फैसला किया है। रक्षा सामग्री के स्वदेशी उत्पादन को बढ़ावा देने तथा नई सामरिक महत्व की खोजों को बढ़ावा देने के लिए डीआरडीओ और आईआईटी आपसी सहयोग बढ़ाएंगे।

प्रधानमंत्री नरेंद्र मोदी ने हाल ही में डीआरडीओ के वैज्ञानिकों से रक्षा सामग्री का स्वदेशी उत्पादन बढ़ाने और उद्योग और संस्थानों के साथ मिलकर कार्य करने का आह्वान किया था। इसकी कड़ी में दोनों संस्थान आगे बढ़ रहे हैं। आईआईटी में शोध करने वाले रक्षा से जुड़े विषयों को प्राथमिकता देंगे। डीआरडीओ की देश भर में 54 प्रयोगशालाएं हैं, जबकि आईआईटी के बास बेस्ट ब्रेन हैं, लेकिन उसके पास सामरिक महत्व के शोध के लिए उपयुक्त प्रयोगशालाओं की कमी है।

मेक इन इंडिया

- स्वदेशी रक्षा उत्पादन बढ़ाने के लिए सहयोग बढ़ाया
- डीआरडीओ के वैज्ञानिकों को आमंत्रित करेंगे आईआईटी

डीआरडीओ की प्रत्येक प्रयोगशाला की खूबी यह है कि वह सामरिक महत्व के किसी खास क्षेत्र में शोध की सुविधाओं से लैस है। आईआईटी के शोधकर्ता इन प्रयोगशालाओं में आकर शोध कार्य कर सकेंगे। इस कड़ी में आईआईटी ने डीआरडीओ

के सेवानिवृत्त वैज्ञानिकों को प्रोफेसरशिप देने का ऐलान किया है। साथ ही आईआईटी डीआरडीओ के सेवारत वैज्ञानिकों को भी बतौर अतिथि शिक्षक लेक्चर आदि के लिए बुलाएंगे। जो छात्र रक्षा से जुड़े मुद्दों पर शोध करेंगे, उन्हें प्रयोगशाला की सुविधा तो मिलेगी ही, साथ में उन्हें स्कॉलरशिप भी डीआरडीओ प्रदान करेगा। इसी प्रकार आईआईटी में एक ज्वाइंट रिसर्च सेंटर बनाया जाएगा जहां विशेषज्ञ शोध के लिए रणनीति तैयार करेंगे तथा विषयों का चयन करेंगे।

जेईई मेन : ऑनलाइन आवेदन कल से

अमर उजाला ब्यूरो

नई दिल्ली। हरियाणा, उत्तराखंड, नागालैंड व मध्यप्रदेश में रहने वाले छात्रों के लिए खुशखबरी है। अब वह भी जेईई मेन के स्कोर के आधार पर अपने राज्य के इंजीनियरिंग संस्थानों में दाखिला ले सकेंगे।

अब तक इन राज्यों के छात्रों को इंजीनियरिंग संस्थानों में दाखिला राज्य स्तर की प्रवेश परीक्षा के आधार पर मिलता था। अब गुजरात, महाराष्ट्र व उड़ीसा के साथ ही यह राज्य भी जेईई मेन की

हरियाणा, उत्तराखंड और नागालैंड में भी जेईई मेन से दाखिले

अब तक राज्य स्तरीय परीक्षा के आधार पर होते थे एडमिशन

ऑफलाइन परीक्षा 4 अप्रैल व ऑनलाइन परीक्षा 10 और 11 अप्रैल को

संयुक्त प्रवेश परीक्षा में शामिल हो गए हैं। इसके लिए 7 नवंबर से ऑनलाइन आवेदन प्रक्रिया शुरू हो जाएगी। अब इन राज्यों में भी जेईई

मेन के स्कोर को मान्यता मिलेगी। छात्र फिलहाल इंजीनियरिंग संस्थानों में प्रवेश राज्य स्तर की परीक्षा के आधार पर ले रहे थे। सीबीएसई की ओर से इंजीनियरिंग करने के इच्छुक छात्रों को सलाह दी गई है कि इन राज्यों के संस्थानों में दाखिले के लिए जेईई मेन की परीक्षा में बैठें।

देश भर में जेईई मेन 2015 की ऑफलाइन परीक्षा के तहत पेपर-1 (बीई व बीटेक) व पेपर-2 (बीआर्क व बी प्लानिंग) का आयोजन 4 अप्रैल को होगा। वहीं, ऑनलाइन परीक्षा 10 व 11 अप्रैल

को होगी। जेईई मेन के लिए केवल ऑनलाइन आवेदन ही किया जा सकता है। ऑनलाइन आवेदन की प्रक्रिया सात नवंबर से शुरू होने जा रही है। ऑनलाइन आवेदन करने की अंतिम तिथि 18 दिसंबर है। जेईई मेन में आवेदन के लिए उम्मीदवार जेईई मेन की वेबसाइट www.jeemain.nic.in से इंफॉर्मेशन बुलेटिन डाउनलोड कर सकते हैं।

उल्लेखनीय है कि वर्ष 2013 से सीबीएसई जेईई मेन का आयोजन कर रहा है। जेईई मेन परीक्षा के जरिये बीई-बीटेक (एआईईईई

पेपर-1), व बीआर्क व बी प्लानिंग (एआईईईई पेपर-2) में दाखिला मिलता है। जेईई मेन परीक्षा में शामिल होने वाले छात्रों में से (सभी वर्गों से) उच्चतम अंक पाने वाले डेढ़ लाख छात्रों को जेईई एडवांस परीक्षा में बैठने की अनुमति मिलती है। जहां जेईई एडवांस की तिथियों की घोषणा आईआईटी की ओर से की जा चुकी है। जेईई एडवांस के तहत पेपर-1 व पेपर-2 का आयोजन 24 मई 2015 को होगा। इसके लिए आवेदन प्रक्रिया 2 मई से शुरू होकर 7 मई तक चलेगी।

YOUNG TECHIES THE MIDDLE-SCHOOLER WANTS TO MASS-PRODUCE THE PRINTERS

13-year-old Indian-origin entrepreneur gets Intel Capital funding for low-cost Braille printer

REUTERS

HUNTINGTON BEACH (US), NOVEMBER 5

IF Shubham Banerjee cannot lay claim to being the world's youngest venture capital-backed entrepreneur, he comes very close.

Banerjee was 12 years old when he closed an early-stage funding round with Intel Capital, the company's venture capital arm, last month for his prototype for a low-cost Braille printer. Since then, the San Jose, California middle-schooler has turned 13. That's young, even by the standards of Silicon Valley, where many venture capitalists unapologetically prefer to fund youth over experience.

Young entrepreneurs usually have reached at least their mid-teens when they hit it big. Nick D'Aloisio, founder of online news ag-



Shubham Banerjee, founder of Braigo Labs Inc., holds a printer in Palo Alto, California, in this 2014 handout photo provided by Braigo Labs Inc. REUTERS

gregator Summly, was 17 when Yahoo bought his company last year for \$30 million. Brothers John and Patrick Collison, behind payments service Stripe, were 16 and 19 when they sold an earlier business to a Canadian company for \$5 million.

After reading a fundrais-

ing flyer about the blind, Banerjee felt inspired to turn a high-tech version of Legos, the toy building blocks, into a device that could print in Braille. One day, he wants to mass-produce the printers and sell them for about \$350, far less than Braille printers cost now. This past summer,

he worked on incorporating an Intel Edison chip, a processor aimed at hobbyists, into the printer. In September, Intel invited him to a conference in India to highlight uses for Edison. There, he got a big surprise. Intel executive Mike Bell announced from the conference stage that the giant chipmaker would invest in his company, Braigo Labs. Until then, his funding consisted of the \$35,000 his parents gave him.

"I turned back to my dad, and said, 'What did he just say?'" Banerjee recalled. "I was all over the place." Banerjee and a spokesman for Intel Capital declined to disclose the size of the investment. A person familiar with the matter said it was a few hundred thousand dollars. He plans to use it to build a better prototype of the printer and test it with more groups for the

blind. After the announcement, Banerjee had to bone up on unfamiliar terms such as "venture capital." He also needed to convince adults to co-sign his funding and patent documents. Among the company officials he turned to: Braigo's president, his mom, Malini.

Banerjee says he gets mostly As and Bs as a student at the Champion School in San Jose, California.

Teachers have given him time off to attend events like the conference in India and the Intel Global Capital summit this week in Huntington Beach, California. He catches up on school work on weekends, he says.

This is the second Intel investment connected to the Banerjee family. His dad, Neil, works for Kno, an education start-up that Intel bought last year.

आईआईटी, आईआईएम के लिए नहीं मिल रही जमीन

धीरज कनोजिया

नई दिल्ली। देश में नए आईआईटी और आईआईएम खोलने का ऐलान भले ही केंद्र सरकार ने जोर शोर से कर दिया हो लेकिन इसके लिए जमीन ही उपलब्ध नहीं हो पा रही है। कई राज्यों को बड़े क्षेत्रफल की जमीन नहीं मिल पा रही है। जुलाई में पेश मोदी सरकार के बजट में देश में पांच नए आईआईटी और छह आईआईएम खोलने का प्रस्ताव किया गया था। मगर कई राज्य अभी तक मानव संसाधन मंत्रालय को जगह का अतापता नहीं बता पाए हैं।

आंध्र प्रदेश और छत्तीसगढ़ ने मंत्रालय से उच्च शिक्षण संस्थानों के लिए नियमों में ढील देते हुए जमीन के क्षेत्रफल को घटाने की गुजारिश की है। इन राज्यों का कहना है कि उन्हें बड़े क्षेत्रफल में जमीन नहीं मिल पा रही है। मंत्रालय ने भी इनकी बात

आंध्र, छत्तीसगढ़ ने संस्थान के लिए तय जमीन की सीमा घटाने की मांग की

पांच माह पहले बजट में ऐलान के बाद भी नहीं मिली बड़े क्षेत्रफल की जमीन

को गंभीरता से लेते हुए जमीन की सीमा घटाने का मन बनाया है। आंध्र सरकार ने मानव संसाधन मंत्रालय को चिट्ठी लिखकर तिरुपति में आईआईटी खोलने का प्रस्ताव दिया है। लेकिन जमीन नहीं मिलने के कारण उनसे आईआईटी के लिए जरूरी 500 एकड़ जमीन को घटाकर 200 एकड़ करने की मांग की है। आईआईएम के लिए कैंपस का तय मानदंड अभी 200 एकड़ है जबकि ट्रिपल आईटी के लिए 100 एकड़ भूमि होनी चाहिए। छत्तीसगढ़, जम्मू-कश्मीर और गोवा ने अभी तक कोई प्रस्ताव नहीं भेजा है।

Business Standard ND 06/11/2014

P-8

IIM-B top B-school in Central Asia: Study

BS REPORTER ■ Bangalore
Eduniversal Business School Ratings and Rankings said the Indian Institute of Management, Bangalore, was the top business school in Central Asia. It was again among the top-three B-schools in the region. French rating agency SMBG brought out the rankings.

HT.COM ND 06/11/2014 P-10

Validity of degrees can be questioned after completion



■ Students are studying in the off-campus
THINKSTOCK

Jeevan Prakash Sharma

About 200 students from Jammu and Kashmir pursuing various undergraduate courses under the Prime Minister's Special Scholarship Scheme (PMSSS) in an off-campus study centre of Mewar University in Vasundhara, Ghaziabad, stand the risk of having the validity of their degrees questioned once they complete their courses.

This study centre, running in complete violation of UGC norms and a Supreme Court judgment (Prof Yashpal case, 2005) banning off-campus study centres for regular

courses, is offering degree courses in law, physiotherapy, business administration, bachelor of technology, computer application, biotechnology etc.

A university staff member, requesting anonymity, says, "These students are staying in campus hostels and attending regular classes under the PMSSS. The university has access to the students' scholarship money (ranging from ₹1.3 lakh to ₹4 lakh for each student depending on the course he/she is pursuing)."

On being contacted, Ashok Kumar Gadiya, chairperson, Mewar Uni, denied admitting any student in the Vasundhara centre, add-

ing, "We have about 1200 students from Jammu and Kashmir but all of them are studying in the main campus of the university at Chittorgarh," he said.

A source in the All India Council for Technical Education (AICTE) confirmed that. "These private universities have admitted a large number of students and have shifted them to their off-campus centres or other affiliated institutes. In both cases, degrees from such institutes would be invalid. The question is: Why is the UGC quiet about this even when the study centres are playing with the lives of these students?"

HT,COM ND 06/11/2014 P-10

Education an opportunity: Smriti

Asian News International

Smruti Zubin Irani, Minister of Human Resource Development, said on Wednesday that education is not a challenge, but an opportunity.

Irani was speaking at a session on 'Which Comes First: Employment or Employability' at the India Economic Summit organized by the World Economic Forum and the Confederation of Indian Industry in New Delhi on Wednesday.

She stated there is a need to rejuvenate the teaching profession and bring back the respect that this profession once enjoyed. She stated that the PM's initiative to reach out to students on Teachers Day

was a step in that direction. She further added that currently the Indian education system does not have a system of credit transfers between institutions. This was a major issue for students who have been forced to take a break in their education due to unforeseen circumstances. It is for this reason that the Government of India is now announcing a scheme for credit transfer on Nov 11.

She also announced that the government was encouraging Universities to set up placement cells to encourage dialogue between students and employers. She mentioned that the Govt was experimenting with Massive Open Online Courses (MOOCs) to reach out to students.

IISc researchers discover key to better batteries

<http://www.bangaloremirror.com/bangalore/others/IISc-researchers-discover-key-to-better-batteries/articleshow/45039850.cms>

Researchers at the Indian Institute of Science (IISc) have discovered a technique that they vouch will give batteries longer lifespan. They have developed a hybrid super-capacitor that can store a lot more battery charge, charge faster and withstand many charging cycles than the currently available batteries.

The researchers from Solid State and Structural Chemistry Unit at IISc developed the device which is an iron-carbon hybrid super-capacitor.

Batteries store energy in chemical reactants capable of generating charge while super-capacitors store energy directly as charge. Charging a battery is a slow process. Chemicals that actually store energy in the battery degrade over multiple charge and discharge cycles. In contrast super-capacitors overcome these problems.

So the researchers started with the widely available nickel-iron battery and then replaced the nickel electrode with a carbon electrode. This is because nickel is both costly and toxic.

The new super-capacitor was taken through many charge-discharge cycles to test its performance. Although its ability to store energy decreased after a few charge-discharge cycles, they found that it subsequently stabilised.

And they found why it happened: "The capacitance (the ability to store electric charge) of the iron-carbon hybrid capacitor decreases during charging cycles due to high self-discharge of the Fe electrode and poor charge retention of the carbon electrode in alkaline electrolyte," explained AK Shukla, the co-author of the paper that has been published in the Bulletin of Materials Science.

The researchers - VR Chari and SR Aravamuthun, apart from Prof Shukla - feel they need to work on the device to perfect it before commercialising it. They said the super-capacitor can be improved further to make it a marketable product. "The capacitance of the carbon material in alkaline electrolyte needs to be improved. Also, the thickness of the iron electrode needs to be decreased to obtain high power delivery," said Prof Shukla.

Rechargeable batteries are commonly used - from powering the eco-friendly electric vehicles to driving our increasingly digital lifestyles.

The researchers believe that super-capacitors - which can either be used in combination with normal batteries, or as a standalone power - would meet the requirements.

Govt's agenda for higher education: Online courses, exchange programmes

<http://www.hindustantimes.com/hteducation/educationnews/govt-s-agenda-for-higher-education-online-courses-exchange-programmes-community-colleges/article1-1282829.aspx>

Hundreds of American professors invited to teach at Indian colleges each year. A new platform for Massive Open Online Courses (MOOCs) to make US course material accessible to Indian students. A partnership between the All India Council for Technical Education (AICTE) and the American Association of Community Colleges (AACC), to build community colleges in India and link academia with industry requirements.

These are some of the initiatives on the higher-education agenda of the new government, following prime minister Narendra Modi's recent visit to the US.

"Although our education system is expanding, the quality is dipping," says Suhas Pednekar, principal of Ramnarain Ruia College, Matunga. "This collaboration is the need of the hour since it will improve the quality of training provided to teachers and students."

Students too feel that access to foreign professors, course material and educational formats will give them an edge. In fact, for many, it will be a step to institutionalise the online assistance they have been seeking on their own, from free courseware available online.

"Faculty members from abroad have a wider perspective on subjects and MOOCs could be the best way to deliver it," says Prakruti Maniar, 20, a mass-media student from Usha Pravin Gandhi College of Management in Vile Parle. Maniar took an online course six months ago on Engaging India, hosted by online education platform EdX.

Going digital

US daily The New York Times highlighted 2012 as the year of MOOCs, but India is yet to catch up to this trend. SWAYAM (Study Webs of Active Learning for Young Aspiring Minds) is PM Modi's first attempt to change this.

Until now, the Indian footprint in the MOOCs plane has been limited to a few elite colleges, such as IIT-Bombay, IIT-Delhi and IIM-Bangalore, who offer their courses on foreign portals such as EdX and Coursera.

EdX, a free education portal started by the US-based Massachusetts Institute of Technology (MIT) and Harvard University, is set to provide the platform for SWAYAM, sources said.

As per a government press release posted on the Press Information Bureau website, SWAYAM's first phase will see IIT-Bombay, IIT-Madras, IIT-Kanpur, IIT-Guwahati, University of Delhi, Jawaharlal Nehru University, IGNOU, IIM-Bangalore, IIM-Calcutta and Banaras Hindu University, alone as well as with the help of foreign faculty, offer courses in areas of engineering education, social science, energy, management and basic sciences. "At least 1 crore students are expected to benefit in two to three years through this initiative," states the release, adding that SWAYAM will be launched "in 2014".

"The key to having effective MOOCs is having experts to conduct them," says V Sivaramakrishnan, executive president of education services at Manipl Global Education Services, which currently has 15,000 students undergoing online certification courses. "The demand for MOOCs among Indian students has grown considerably, due to the flexibility and convenience of the technology, and it can only grow further."

"I am a big fan of online courses," says Akshay Lakhi, 22, a computer engineering graduate from Veermata Jijabai Institute of Technology (VJTI), who took two courses from Coursera, on finance and irrational behaviour, in February. "Indian colleges do not have the wide spectrum of courses that US universities offer. The Indian government's initiative to introduce the online courses will help students gain an international perspective and earn a certificate, for a nominal fee."

Faculty exchanges

Under the Global Initiative of Academic Networks (GIAN) programme, India's ministry of human resource development and department of science and technology will "create a channel for US professors in science, technology, engineering, and mathematics to teach in Indian academic and research institutions on short-term exchanges", as per the website of the US Department of State.

"Encouraging faculty exchange between academicians of different nationalities helps achieve productive interaction. Students become open to international ideas too," says Frazer Mascarenhas, principal of St Xavier's College, Fort. "A professor coming from a foreign country will impart fresh perspectives on each subject. The experience gained through this exchange of knowledge and culture will be effective for students."

Indian students studying in the US say the Indian higher education system could learn a lot from the US

counterpart. "We are taught to understand everything in a way that can be applied in the real world, unlike the theoretical system in India," says Neelam Patil, 25, an electrical engineering graduate from Illinois Institute of Technology.

"Plagiarism checks, for instance, are taken very seriously," says Moiz Navsariwala, 25, an electrical engineering student at San Jose State University. "We are taught to develop practices such as independent thinking early on."

Community colleges: Bridging the gap

In developing economies, community colleges can help link industry requirements to college curricula. Under an agreement signed between the AICTE and AACC, collaborative community colleges will provide education through diplomas and certificate programmes.

"This collaboration will enable us to train our faculty with practices followed in the US, and also to receive accreditation from US authorities for training programmes," says SS Mantha, chairman of the AICTE. "We have started working towards building these community colleges and have funded almost 70 colleges to set them up."

“Establishing community colleges leads to a win-win situation for both industry and the student,” says Rajpal Hande, director, board of college and university development, University of Mumbai. “For instance, one of Mumbai university’s community colleges is sponsored by Hindustan Coca-Cola [the largest bottling partner of Coca-Cola in India]. The company helps train students to meet their standards, and at the end of the course, many are placed at the company.”

“The growth of community colleges is extremely beneficial since it bridges the gap between the academics and industry requirements,” adds Hande. The Mumbai University has also signed an MoU with Hawaii University in October 2013, to set up more community colleges in Mumbai.

Passporttoindia.com

The US government has re-launched the Passport to India initiative as a part of the collaboration between the two countries. The programme was launched in 2012 to encourage students from the US to study in India.

“The reverse flow of American students is barely 2%, as compared to the number of students going to America,” says Ajit Ranade, an economist and political analyst. “This is clearly asymmetric, despite India’s population being four times higher than that of USA.”

Passport to India aims to provide specific opportunities and financial support to encourage marginalised US students to gain experience and exposure in India. “If more private corporations and universities choose, through philanthropy, to fund part of the expenses of American students, perhaps more will come,” says Ranade. “Some of the students may choose to work in India as well, which could be beneficial too.”

Early next year, Passport to India will launch a massive open online course (MOOC) for American students interested in learning about India.

They say

“In the US, students are taught to think independently and to apply theoretical concepts to the real world. Also, best practices such as plagiarism checks are taken very seriously, and inculcated in students early on. Indian students can definitely benefit from such collaborations.”

- *Moiz Navsariwala, an electrical engineering student at San Jose State University*

“Although our education system is expanding, the quality of our education is dipping. Such collaborations are definitely the need of the hour, since they will help improve the quality of training provided to teachers and students. They will also help students and faculty, gain an international perspective.”

- *Suhas Pednekar, principal, Ramnarain Ruia College, Matunga*

“Having community colleges will enable us to train our faculty with practices followed in the US. It will also help us to receive accreditation from authorities in the US to train staff. We have already started working towards building these colleges and have allocated funds for about 70 colleges across the country.”

- *SS Mantha, chairman, All India Council for Technical Education (AICTE)*

Competitive innovation is the way forward

<http://www.hindustantimes.com/hteducation/chunk-ht-ui-hteducationsectionpage-otherstories/competitive-innovation-is-the-way-forward/article1-1282694.aspx>

Ericsson has recently announced the launch of the Ericsson Innovation Awards in association with the Foundation for Innovation and Technology Transfer (FITT) to recognise the spirit of innovation among students at Indian Institutes of Technology (IITs). With these awards, Ericsson aims to facilitate innovative projects from engineering students and support some deserving ventures through to their incubation phase at IIT-approved technology business incubators. These awards will also insulate the inventor with regard to his/her patent.

Incidentally this is the first time that Ericsson has inked a MoU with seven IITs and the FITT to encourage innovation. Talking about the broad objectives of this MoU, Chris Houghton, head of region India, Ericsson says, “At a macro level, this will give an edge to not just innovation but research in the telecom space. This initiative will encourage students to find innovative technology solutions for masses. It is a step to realise the Digital India Vision. For India to truly become digital, you need technology which can be deployed using the internet. Hence we have invited projects within the telecom domain and on Internet of Things.” The Ericsson Innovation Awards seek innovations in areas such as web design, cloud computing, storage and networking, human-machine interface, embedded and hardware system design, MIMO (multiple-input, multiple-output), machine-to-machine/Internet of Things, software-defined networking, open source, graphics and visualisation, as well as research. Ericsson has invited proposals from IIT students across Chennai, Delhi, Kanpur, Kharagpur, Mumbai, Roorkee and Banaras Hindu University.

Following the preliminary screening phase, the student proposals will be shortlisted through two jury sessions, comprising senior members from Ericsson R&D, FITT and industry experts. In the first round, the jury will shortlist up to 10 proposals. Each shortlisted proposal will be given an incentive by Ericsson to complete the initial prototype within three months. In the second round, the jury will select two innovation projects. These will be announced in a ceremony in April 2015.