

## Newspaper Clips

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शुरुआत | एचआरडी ने जमीन अधिग्रहण का कार्य किया पूरा, बाउंड्री वॉल का काम समाप्ति की ओर

# नए आईआईटी संस्थानों के निर्माण कार्य शुरू

कविता जोशी. नई दिल्ली

देश में इंजीनियरिंग के प्रतिष्ठित संस्थानों में शुमार छह नए भारतीय प्रौद्योगिकी संस्थानों (आईआईटी) के स्थायी कैम्पस के निर्माण कार्य का श्रृंगार हो गया है। इसके लिए केंद्रीय मानव संसाधन विकास मंत्रालय (एचआरडी) ने जमीन अधिग्रहण का कार्य हाल में पूरा किया है और अब यहां बाउंड्री वॉल बनाने का काम लगभग अंतिम चरण में पहुंच गया है। नए कैम्पस को लेकर छत्तीसगढ़, जम्मू, गोवा, आंध्र-प्रदेश, केरल और कर्नाटक जैसे राज्यों में निर्माण कार्य शुरू हुआ है।

## आईआईटी मतलब स्मॉल टाउनशिप

एचआरडी मंत्रालय के विश्वसनीय स्रोतों ने हरिभूमि को बताया कि किसी भी जगह पर



आईआईटी संस्थान खोलना एक नया शहर बसाने की तरह होता है, जिसके लिए करीब 500 एकड़ जमीन की आवश्यकता होती है। इसे स्मॉल टाउनशिप के नाम से भी जाना जाता है। अक्टूबर के अंत तक ये सभी 6 आईआईटी संस्थान मंत्रालय को निर्माण कार्य संबंधी अपनी

विस्तृत परियोजना रिपोर्ट (डीपीआर) सौंपेंगे। इसके बाद नवंबर-दिसंबर तक इनका आर्थिक प्रस्ताव केंद्रीय मंत्रिमंडल की मंजूरी के लिए भेजा जाएगा। अभी ये सभी संस्थान अस्थायी कैम्पस से काम चला रहे हैं। यहां ये तीन वर्षों तक रहेंगे।

## 10 हजार करोड़ का खर्च

6 संस्थानों के निर्माण कार्य पर कुल करीब 10 हजार करोड़ रुपए का खर्च आएगा। एक संस्थान पर कुल 1500 करोड़ रुपए का खर्च आने का अनुमान है। केंद्रीय मंत्रिमंडल से वित्त प्रस्ताव मंजूर होने के बाद अगले वित्तीय वर्ष 2017-18 से अधिकृत रूप से इन्हें आगे के निर्माण कार्य के लिए धनराशि आवंटित की जाएगी।

## 9 हजार से ज्यादा छात्र लेंगे दाखिला

आईआईटी संस्थानों में ज्यादा से ज्यादा बच्चों

को दाखिला दिलाने के केंद्र के लक्ष्य को ये नए संस्थान आसानी से पूरा करेंगे। इनका निर्माण कार्य पूरा होने के बाद प्रत्येक संस्थान में कुल 9 हजार 348 छात्रों को पढ़ने का मौका मिलेगा। इसमें प्रथम वर्ष में 180 छात्र एडमिशन लेंगे। द्वितीय वर्ष में यह संख्या बढ़कर 450 और तीसरी वर्ष में 928 (840 अंडरग्रेजुएट, 80 पोस्टग्रेजुएट, 8 पीएचडी) छात्र एडमिशन ले सकेंगे। 6 नए आईआईटी संस्थानों के शुरुआती गठन और कानूनी मान्यता देने के लिए केंद्र ने सोसाइटीज रजिस्ट्रेशन एक्ट 1860 का प्रयोग किया और इसके बाद संसद के पिछले मानसून सत्र में इन्हें द इंस्टीट्यूट ऑफ टेकनोलॉजी एक्ट 1961 में संशोधन कर बाकी आईआईटी संस्थानों की सूची में शामिल करवाकर संसद की मंजूरी दिलायी गई।

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# Govt dilutes HEFA's equity requirements

BY PRASHANT K. NANDA  
prashant.n@livemint.com

NEW DELHI

The government has diluted equity requirements for the higher education financing agency (HEFA) after potential partners expressed their inability to infuse Rs1,000 crore into the vehicle meant to fund educational institutions at market rates. Instead of the Rs2,000 crore equity portion that the cabinet approved earlier this month, with Rs1,000 crore coming from the government, HEFA will now have Rs1,050-1,100 crore of equity that will be used to raise funds from the

markets for lending to educational institutions.

Potential equity partners balked at infusing Rs1,000 crore into the vehicle, given that it's expected to be a low-margin business, prompting the government to set its sights lower, two government officials said on condition of anonymity. Instead of a partner pumping in Rs1,000 crore, it will now be required to put in Rs50-100 crore, one of the two officials said.

"HEFA may not be a volume business initially and the profit margin will be low. So, putting in Rs1,000 crore of equity money was a little tough on the partner. Banks that the government interacted with were

hesitant to pump in that much of money. So, we decided to be more rational in our expectations," the first official added.

With no separate infrastructure, no staff and the significant dilution of equity requirements, HEFA will start operations on a shaky note.

HEFA marks the start of a market-linked education financing structure and a departure from the traditional grant-based system of funding higher educational institutions.

It will be launched in a couple of months.

The government has selected Canara Bank as its partner. Canara Bank is also the nodal bank managing the

education loan interest subsidy scheme. An email sent to Canara Bank on how much money it was infusing in HEFA remained unanswered. An email to Syndicate Bank, which was interested in joining the funding project, also remained unanswered.

HEFA will leverage the equity money to raise Rs20,000 crore from loans and bond sales to fund infrastructure development at central educational institutions such as IITs, NITs, IIMs and central universities.

HEFA will borrow funds at close to the 10-year gilt rate, which is around 8% at present, and lend to institutions at a slightly higher rate.

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# Edutech start-up ConceptOwl plans to disrupt IIT-JEE coaching space

Ties up with Bansal Classes to deliver coaching content on mobile platform

VINSON KURIAN

Thiruvananthapuram, September 28

Kerala-based education start-up ConceptOwl is aiming to "seriously disrupt" the IIT-JEE coaching space by tying up with pioneers Bansal Classes based in Kota, Rajasthan.

The popular Bansal content will now ride on ConceptOwl's mobile platform to deliver personalised coaching to aspirant students elsewhere in the country.

## Test prep space

"Our goal is to take one big slice of the multi-million dollar industry," says Rajan Singh, founder at ConceptOwl. He is a former Police Commissioner of Thiruvananthapuram and a Wharton MBA with a stint at McKinsey in New York.

"Test prep will be the first



Rajan Singh, founder, ConceptOwl

segment and our approach is classroom plus technology plus excitement. IIT/JEE test prep market is put at around ₹10,000 crore, but I believe that is an understatement. .the overall tuition market is of the order of ₹40,000 crore."

And that is excluding the domain of schools. This is a very powerful and attractive commercial opportunity to tap because the need/demand is very well established, Singh said.

The tech platform will be made available to instructors wherein it becomes the aca-

ademic engine. All testing and practice will be through the platform; lectures will continue to be delivered in classrooms.

IIT/JEE or medical-entrance coaching is a rigorous two-year learning process. The student needs to be committed, motivated, and constantly supported. Only an instructor can ensure this, says Singh.

The idea is to open 100 off-line coaching centres in Tier II and III cities over time, for which Singh is seeking to raise private-equity funds.

He has already received a few offers, which are being looked into. "Our goal is to hit a revenue of ₹1,000 crore in five years." Singh had got in touch with the Bansals two years ago, and told them that for every student who goes to Kota for learning, there were 10-20 times the number who could not. What he proposed was creating a new technology using mobile/internet to take the same learning, content and methodology to other places.

The ConceptOwl app enables an instructor to analyse and assess every single student and provide personal guidance, something not totally possible in a pure classroom scenario, claims Singh.

"So a combination of personal attention through technology, plus the convenience of the child, are now layered on top of what the Bansals are offering, which is, in itself, a formidable product." Singh said.

A "killer" feature that ConceptOwl plans is bringing the curiosity and sense of excitement into the learning system. And this is going to be the differentiator, and a potential disruptor in the industry.

Singh is talking to retired space scientists, top-rated faculty members of institutes such as IISc-Bangaluru, professors, teachers and student to source their ideas and interesting problems. These will be packaged and delivered in workshops, the first of which would be held in Thiruvananthapuram.

## A new handheld device to detect melamine in milk

<http://www.thehindu.com/news/national/a-new-handheld-device-to-detect-melamine-in-milk/article9159866.ece>

Detecting melamine in milk has become extremely easy, quick and inexpensive thanks to a handheld melamine detector developed by researchers at the Indian Institute of Science (IISc), Bangalore. Leaf extract of a commonly seen weed parthenium along with silver nitrate is used for detecting the presence of melamine in milk. The results were published in the journal *Sensors and Actuators B: Chemical*.

"The presence of melamine in milk can be detected at room temperature within a few seconds through a change in colour," says S.C.G. Kiruba Daniel from the Department of Instrumentation and Applied Physics, IISc and the first author of the paper.

"Our sensor has a very high sensitivity as it can detect melamine even at a low concentration of 0.5 ppm in raw milk." Melamine content of more than 1 ppm in infant formula and more than 2.5 ppm in other foods should be viewed with suspicion of adulteration, says the Food Safety and Standards Authority of India.

In 2008, at least four babies in China died and around 100,000 became sick after consuming powdered milk baby food laced with melamine. Due to the presence of nitrogen, the addition of melamine to milk makes it look protein-rich.

Prior to melamine detection, the milk is processed to remove fat and proteins as they tend to interfere with detection. While most researchers had used already prepared silver nanoparticles for melamine detection, the IISc team added silver nitrate and the leaf extract in a particular ratio and at a particular pH to the preprocessed milk to synthesise silver nanoparticles.

“If melamine is present then it interferes with the synthesis and there is abrupt formation of nanoparticles leading to colour change,” says Dr. Daniel.

The change in colour depends on the amount of melamine present and, therefore, the extent of its interference with the synthesis of silver nanoparticles. “The colour change can be directly observed by the naked eye and also recorded by spectral change,” he says.

The silver nanoparticles are reddish yellow in the absence of melamine, while it becomes nearly colourless when melamine is present. Light absorption at 414 nm wavelength is a signature of silver nanoparticles. But when melamine is present the absorption of light is reduced as nanoparticle formation decreases.

“Currently, milk samples have to be brought to a central testing facility, so very less testing gets done. But all this can change with our handheld device,” Dr. Daniel says. As little as 1 ml of milk is sufficient for carrying out melamine detection.

The team is in the process of commercialising the product through a start-up that is incubated at the Society for Innovation & Development Centre at IISc.