#### Newspaper Clips August 23-24, 2015

August 23

### Hari Bhumi ND 23/08/2015 P-08

# आईआईटी में पढ़ाएंगे विदेशी शिक्षक

कविता जोशी. नई दिल्ली

तकनीकी शिक्षा के मामले में देश के शीर्ष शिक्षण संस्थानों की सूची में शामिल आईआईटी और एनआईटी में अगले शैक्षणिक सत्र से विदेशी शिक्षकों के पढ़ाने का सिलसिला शुरू हो जाएगा।

केंद्रीय मानव संसाधन विकास मंत्रालय ने इस पर विदेशों से आए शिक्षकों के आवदनों को शॉर्टलिस्ट कर लिया है और अब करीब एक महीने के अंदर ने चयनित लोगों के साक्षात्कार लेने का काम पूरा कर लिया जाएगा और उसके बाद चुने हुए शिक्षक अगले शैक्षणिक सत्र से कक्षाएं लेने लगेंगे। 15 विकसित देशों से हुई बातचीतएचआरडी मंत्रालय के सूत्रों ने हरिभूमि को बताया कि इसके लिए मंत्रालय ने 'ग्लोबल इंनीशिएटिव फॉर एकेडिमक नेटवर्कर्स' यानि ज्ञान नामक योजना शुरू की। इसका उद्देश्य आईआईटी, एनआईटी जैसे संस्थानों में सामने आ रही फैकेल्टी की कमी की

समस्या को दूर करना है। योजना की शुरूआत इस साल के शुरूआती महीने जनवरी में प्रधानमंत्री नरेंद्र मोदी और अमेरिकी राष्ट्रपति बराक ओबामा की गणतंत्र दिवस से पहले हुई मुलाकात के दौरान अमेरिकी विश्वविद्यालयों के शिक्षकों को भारत में पढ़ाने के लिए आमंत्रित

# विदेशी शिक्षकों के आवेदन शार्टलिस्ट किए

करने को लेकर की गई थी। लेकिन अब करीब 15 विकसित देशों के साथ ज्ञान को लेकर बातचीत हो।

### शिक्षा में निवेश की दरकार

प्रधानमंत्री नरेंद्र मोदी ने बीते वर्ष मई के अंत में देश की कमान संभालने के बाद दुनिया के तमाम विकसित देशों का दौरा किया है। यहां उनकी दिपक्षीय बातचीत में शिक्षा से जुड़े हुए मुद्दे भी प्रमुखता से शामिल रहे हैं। उनके भाषणों में विदेशों में बसे वहां के नागरिकों और प्रवासी भारतीयों (एनआरआई) से शिक्षा के क्षेत्र में भारत में निवेश करने की पुरजोर वकालत की जा रही है। ज्ञान योजना भी पीएम मोदी और अमेरिकी राष्ट्रपति बराक ओबामा के बीच सहमति से ही शुरू की गई योजना है।

# आईआईटी खड़गपुर ने बनाया योजना का प्रारूप

ज्ञान के लिए मंत्रालय ने आईआईटी खड़गपुर के निदेशक पार्था प्रतिम चक्रवर्ती को प्रारूप तैयार करने की जिम्मेदारी सौंपी थी। उन्होंने अपने प्रारूप में योजना के जिरए विदेशी फैकेल्टी आकर्षित करने के उपायों के बारे में विस्तार से जानकारी दी जिससे आईआईटी के छात्रों को लाभ मिल सके। इसमें कोई भी विदेशी शिक्षक इन संस्थानों में एक सेमिस्टर के लिए पढ़ाने के लिए आएगा और उसे केंद्र के खाते से वेतन दिया जाएगा।

#### **AZHAR IQUBAL, 23** cofounder, Inshorts

It was a dream come true for Azhar Igubal. In June last year, Sachin Bansal, his senior at IIT-D, reached out to him through a common friend and offered to invest in Iqubal's startup called Inshorts, a mobile app that provides top news stories of the day in 60 words along with an outlink to the detailed coverage. The meeting lasted 40 minutes, during which they shot the breeze about college life, professors. movies, hostel life and ves, business, too. Subsequently, the Flipkart duo decided to put in their money into the startup rolled out by the IIT-Delhi dropout in September 2013. The 23-year-old lad also raised investments from Tiger Global in February and July this year. "Inshorts has been all about networking."

## **How Flipkart's Bansals** Splashed out on the IIT-D Network



SACHIN

BANSAL

**ANKIT PRASAD, 24** cofounder, Bobble

Ankit Prasad dropped out of IIT-Delhi in 2012 to turn entrepreneur. The big break came some two years later. In February 2014, Prasad got to know that Flipkart's cofounder Sachin Bansal had registered himself as a user at TouchTalent, an online marketplace for creative talent that Prasad had cofounded. Prasad dropped an email to Bansal, thanked him and asked for his mobile number. Later on the duo spoke for about 10 minutes, mostly about business. And after three months, Sachin Bansal and Binny Bansal, Flipkart cofounders. invested in TouchTalent, which in January this year was rebranded as Bobble, a mobile conversations app.

#### AMBAR SRIVASTAVA, 30 founder, Wrig Nanosystems

It was investment banking firm Avendus Capital that put Ambar Srivastava in touch with Binny Bansal in early 2015. The IIT-Delhi 2008 batch alumnus and founder of Wrig Nanosystems, a medical technology startup, had raised his first round of seed funding in 2011 from an IIT-Delhi alumnus, Manas Fuloria, and in 2015 was hunting for more funds. His call with Binny Bansal in July lasted for an hour and both discussed Wrig Nanosystems' flagship product: TrueHb Hemometer, a device that measures haemoglobin in the bloodstream. While Bansal decided to invest, the largest investor in the startup is also an IIT-Delhi alumnus Gurpreet Singh, founder of US-based VC fund RoundGlass.

#### **AVINASH SAXENA, 31** cofounder, Roposo

The first day of Avinash Saxena's hostel life started at 4:30 am. The freshers were taken out for a jog and the guy leading the pack was Binny Bansal, Saxena's senior by a year at IIT-Delhi, who was the sports secretary of the hostel. That's how the duo, who stayed in the same hostel, called Shivalik, got to know each other. "Binny Bansal was not Binny Bansal at that time. He was just my senior," chuckles Saxena. So when he cofounded Roposo, a social commerce platform in 2012, Bansal offered to invest; he eventually did after two years. Early this month, Roposo raised a Series B round of \$15 million from existing investor Tiger Global, the largest investor in Flipkart.

Belong, an online jobs startup

Chilappagari are from 2010

Petasense, an industrial

and 2014 batch, respectively

гне вут<mark>з соннестюн:</mark> Cofounders Vijay Sharma and Sudheendra

#### **RAJUREDDY. 55** BITS-PILANI, 1981 BATCH

TOTAL INVESTMENTS: 25

savs Igubal.

FOUNDED BY BITS-PILANI ALUMNI:

#### **Grey Orange Robotics**,

and 2012 batch, respectively

Redbus, an online bus ticket platform BITS CONNECTION: Cofounders Inindra Sama, Charan Padmaraju Sudhakar Pàsupunuri are from

Gharpay, a doorstep cash payment

THE BITS CONNECTION: Cofounders Arpit Mohan and Abhishek Nayak are from

e-GMAT, an online course provider for

THE BITS CONNECTION: Cofounder Payal andon is from 2001 batch

green was my non-IIT background," shrugs Radhakrishnan, who managed to close a round of series A funding of \$1 million in December last. After working for over 10 years as a supply chain management and technology consultant in various companies such as Wipro and Cognizant, Radhakrishnan started iTraveller in early 2012. "I had the degree but didn't have the pedigree [IIT]," he grins. For two years, the startup survived on the

network-IIT or any other-can only

take you all the way. Sushanto Mitra, founder and chief executive of Lead Angels Network, says that while networking can open doors and establish the initial references, if the product or service does not deliver its promise, the initial gains can be lost quickly. Lead Angels is an alumni-focused angel network started by Mitra, C Amarnath and Bipin Kumar from IIT-Bombay in 2013. Of its eight investments, five are in IIT alumni companies and the network has chapters in Mumbai, Delhi, Ahmedabad and Hyderabad.

Doubtless, support - and not just financial - from alumni of top technology institutes is just the kickstart young entrepreneurs need. In the West, premier institutions like the Massachusetts Institute of Technology (MIT) and Stanford University have honed angel investing into a fine art. In 2010, Stanford alumni along with a clutch of venture capitalists founded Stanford Angels & Entrepreneurs, which seeks to beef up the Stanford startup community by fostering relationships amongst entrepreneurs and alumni investors. And in 2013, Swati Chaturvedi, an MS from MIT, cofounded the Angel Investors Group for MIT alumni, which has grown to close to 300 MIT alumni and has showcased over 30 startups. For good measure, Chaturvedi holds a bachelor's degree in architecture from IIT-Roorkee's 2000 batch.

Clearly, there's something about an IIT, as entrepreneurs thriving in its ecosystem will heartily agree.



### Alarming rates of IIT NIT Drop-outs; Check fee-refund details

http://indiatoday.in/education/story/iit-nit-dropouts/1/460299.html

Revealing shocking trends, over 4,400 students have dropped out of the Indian Institutes of Technology (IITs) and National Institutes of Technology (NITs) during the last three years. The reason is attributed to academic stress, giving preference to jobs over studies, changing institutions, among others. Since 2012, a total of 2,060 students have dropped out of the 16 IITs across the country. Also, in the same duration, 2,352 students have dropped out of 30 NITs, according to the information from the Ministry of Human Resource Development (MHRD).

The most number of dropouts were from IIT Roorkee, at 228, IIT Kharagpur saw 209 dropouts, IIT Delhi faced 169 and IIT Bombay saw 72 students leave. In order to curb this practice, the institutes have been making efforts to adopt various corrective measures such as setting up counselling sessions and special coaching for the students.

The Joint Seat Allocation Authority 2015 has been instructed by the HRD ministry to return the non-refundable acceptance fee or the tuition fee of the candidates who have not joined the courses. Following this, the procedure for refund of will be published after August 28.

The candidates, however, need not send any e-mail or make calls regarding the refund. The refund will be granted to the candidates who give up on their seats before the academic session begin. If the seat is surrendered after the beginning of the classes, they would get a proportionate refund of the fee, according to the rules laid down by the HRD Ministry. The candidates shall not be entitled to any refund if a seat remains vacant.

The first-ever joint admission process for the Joint Entrance Examination Main 2015 (JEE Main 2015) and JEE Advanced 2015 candidates was conducted by JoSAA 2015 for 87 premier institutes including 18 IITs, the Indian School of Mines Dhanbad (ISM Dhanbad), 31 NITs, 18 Indian Institutes of Information Technology (IIITs) and 18 other Government Funded Technical Institutes (GFTIs).

### India solely occupied with politics: Former IISc director

http://www.daijiworld.com/news/news\_disp.asp?n\_id=347062

**Kolkata, Aug 22 (IANS):** Former director of the Indian Institute of Science (IISc) Padmanabhan Balaram on Saturday criticised the country's sole preoccupation with politics and its fading culture of learning and scholarship.

The Padma Bhushan awardee was addressing students at Presidency University's third annual convocation, which has been on the boil with a section of students keeping Vice Chancellor Anuradha Lohia in confinement since Friday demanding her resignation.

In apparent reference to student protests, Balaram said: "We read (in newspapers every day) one Indian leader or the other bemoaning the fact that not a single university or institute in India is ranked amongst the best in the world.

"It is a question which I have faced for almost a decade as the director of India's most visible institution in science and engineering (IISc)."

"We must ask what is it that preoccupies our country today. Our country primarily is preoccupied with only one subject and that is politics.

"There is no other subject that attracts attention. It is a subject that occupies centrestage. Where is learning?" the renowned biochemist questioned.

Exhorting students to respect the institution they study in and the teachers who guide them, Balaram said India's university teachers were accorded very little respect.

"How much respect do our university teachers get today? Very little from our surroundings and very little from our students," he said.

"We must bring scholarship back to our institutions," he stressed.

### HRD plans to come up with new education policy by December

http://www.dnaindia.com/india/report-hrd-plans-to-come-up-with-new-education-policy-by-december-2117337

The ministry plans to hold meetings with states in the month of September and October, but with most of the states still unprepared, it has an uphill task ahead. An all-India consultation on NEP is expected to take place in November at Delhi.

The Human Resource Development Minist er <u>Smriti Irani</u> after meeting the Central Advisory Committee on Wednesday announced that the ministry will be out with its first draft report on the New Education Policy (NEP) by December this year.

For the minister to bring out its first draft, it will require suggestions from stake holders. However two months, since the consultation process has began, it is mostly the BJP ruled states that have stated the meetings and have sent an update to the HRD ministry.

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In the status report received by the ministry so far, only a handful of states have held these consultations so far. BJP ruled states including Rajasthan, Madhya Pradesh, Chhattisgarh, Gujarat, Goa and Haryana have apprised the ministry about various rounds of consultations they have organised.

"Reports received from Goa and Gujarat suggest that they have completed the district level consultations and will be holding state level talks by the end of this month," informed an officer of the ministry.

Most of the non BJP states are yet to provide the information to the ministry. Poll-bound Bihar and Assam has apprised the ministry that the exercise will began soon.

### Night internet back at IIT-B after a decade

http://timesofindia.indiatimes.com/city/mumbai/Night-internet-back-at-IIT-B-after-adecade/articleshow/48630753.cms

MUMBAI: After a decade of controlled internet, cyberspace can be accessed all 24 hours on the campus of the Indian Institute of Technology-Bombay (IIT-B).

In 2005, growing gaming activity and live entertainment streaming had stoked concerns on campus and led to the introduction of censorship. Several faculty members had linked the unlimited internet usage to student suicides, falling attendance in morning lectures and lagging academic grades.

Now, the premier technical institute feels that banning is not the solution and that the students must realize what hurts them academically.

"We had relaxed the LAN ban in summer," dean (student affairs) Soumyo Mukherji said. "And we have not introduced it again."

Each year, the institute would relax the ban during the holidays, but the internet clock would be set in motion again as the new academic year rolled in and access would be shut off between 1.30 am and 5 am. This time around, internet is free flowing, with no time restriction or limitation on download.

Students have for long been proposing removal of the ban on LAN (local area network) or a reduction in its duration.

Most other IITs also turn off the internet at night, but some did away with the practice when they realized that students could set up a local wi-fi with their cellphones to access the net.

IIT-Delhi is one of the colleges that continue to have the LAN ban from 1 am to 6 am.

IIT-B has made it clear that internet on campus is largely for academic purpose.

"I even spoke about this in the orientation for incoming freshmen," dean Mukherji said. "I want students to take up extra- or co-curricular activities. While I have an open mind right now, if gaming becomes a problem again, I'll enforce the ban."

Students at IIT-B are elated at the decision.

"I actually had a few games on my laptop when I came here," a first-year electrical engineering student said. "But I've realized that there is more that I can do on campus than spend time playing games holed up in my room."

# IIT Bombay-Monash unveil state-of-the-art industry research facility

#### http://indiaeducationdiary.in/Shownews.asp?newsid=35608

**Report by India Education bureau, Mumbai:** The ongoing collaboration between Indian Institute of Technology Bombay (IIT Bombay) and Monash University has been further strengthened by the inauguration of the IITB-Monash Research Academy building which boasts a state-of-the-art industry research facility.

The IITB-Monash Research Academy building was inaugurated today on campus by the Hon Christopher Pyne MP, Minister for Education and Training, Government of Australia in the presence of Prof. Devang Khakhar, Director IIT Bombay, Mr Patrick Suckling, Australia's High Commissioner to India, Prof. Margaret Gardner AO, President and Vice-Chancellor, Monash University, Professor Murali Sastry, CEO of the IITB-Monash Research Academy and many other dignitaries.

Speaking on the occasion, the Hon Christopher Pyne MP, said he was delighted to open the new building of the IITB-Monash Research Academy situated on the campus of Indian Institute of Technology Bombay. The Australian Government, through the Australia-India Strategic Research Fund, was one of the early contributors to this joint venture providing \$1.5 million AUD in seed funding to establish the IITB-Monash Research Academy. Mr Pyne said that the IITB-Monash Research Academy is doing world-class collaborative research work that benefits both Australia and India. "The Australian Government values our strong education and research relationship with India. Research collaboration is essential because no single government or organisation can provide all the solutions to global challenges such as food, energy and water security or health," he said.

The IITB-Monash Research Academy is a unique global PhD research partnership between Monash University and the Indian Institute of Technology (IIT) Bombay. The Academy delivers innovative solutions through collaborative, multi-disciplinary research projects across areas of strategic importance to industry and to Australian and Indian society.

Talking about the collaboration and how it is going from strength to strength, Professor Khakhar, Director, IIT Bombay, said, "The IIT Bombay Monash University Research Academy is a unique India-Australia partnership in higher education and has grown to become the largest such joint degree PhD programme in the world. Students of the Academy are well prepared to work in the modern research ecosystem in which collaboration across borders is becoming essential to address the complex problems of the industry and society at large."

Created in 2008 with initial bi-lateral funding from both Australian and Indian governments, The Academy saw for the first time an Australian university establishing an extensive commitment and presence in India in the research space. Today, The Academy is globally recognised for delivering a leading joint venture research program that closely partners with multinational industry leaders across multiple sectors.

Australia's High Commissioner to India, Mr Patrick Suckling, who was present on the occasion congratulated IIT Bombay and Monash University on the opening of the building. He said, "The IITB-Monash Research Academy joint venture is unique as it aims to train a new breed of talent that spans scientific, engineering and other disciplines. It is pleasing to hear that graduates get the skills to work with multi-national companies and Indian research and development establishments. This will help them contribute to India's national innovation agenda".

The Academy has produced more than 300 extremely high-quality publications, four patents and 28 PhD graduates, with 170 students currently in the program. Students study in both India and Australia and graduate with a jointly badged degree. Graduates are increasingly in demand by industry and universities all over the world.

Providing her insights regarding the growth of The Academy, President and Vice-Chancellor, Monash University Professor Margaret Gardner AO said, "Both IITB and Monash were created to serve national priorities, to help people live healthier, more fulfilling lives in a sustainable, resilient and peaceful world. The Academy epitomises the pursuit of that purpose in building deep partnerships with organisations that have the national and international reach necessary to address major challenges and have impact across regions and populations."

The CEO of the IITB-Monash Research Academy, Professor Murali Sastry, said that the new facility was specifically designed to encourage collaboration and knowledge sharing. "With the opening of the new state of the art facility, the Academy is poised to enter an exciting phase of growth. The building is supported by leading edge technologies and has capacity for 300 students, researchers and support staff. The best and brightest PhD students from India come here to engage in cutting edge research that has real world industry focus and real world outcomes."

Thanking Industry partners Prof. Sastry said, "It is your vision which has contributed to the extraordinary success of The Academy, including CSIRO, BHPB and Orica Mining Services in Australia, and Infosys, Reliance Industries, Jindal Steel Works, SABIC, P&G, Intel, Thermax, Piramal Life Sciences, CISCO and Tata Consultancy Services in India."

PhD students at the IITB-Monash Research Academy are co-supervised by IITB, Monash and industry mentors with over 30 placements across sectors to date including in COMSOL, India; Infosys, Amazon Labs, NEC Labs, Japan; Taiwan Semi-Conductor Ltd, Michelin, Vikram Sarabhai Space Centre, and various post-doctoral positions at leading universities around the world.

# How IIT alumni are turning funders and founders to create their own unique startup ecosystem

http://economictimes.indiatimes.com/small-biz/startups/how-iit-alumni-are-turning-funders-and-founders-to-create-their-own-unique-startup-ecosystem/articleshow/48627452.cms

In April 2014, Himanshu Kapsime was frantically hunting for funds for his fledgling startup ShaadiSaga, a one-stop online wedding planning solutions provider. While the Indian Institute of Technology, Delhi (IIT-D) graduate was in talks with a couple of investors, in June-end a friend introduced him to Niraj Singh, founding partner of Outbox Ventures, an investment firm that specialises in seed funding and early-stage support for startups.

In early July, Singh called Kapsime to his office in Vasant Vihar, Delhi, for a business pitch. The closed-door meeting lasted for over two hours; rather than brainstorming or strategising, the duo spent the morning rewinding to some hilarious snapshots of their hostel life. They met again after a week; this time to sign a deal. Singh, an IIT-D alumnus from the 2007 batch, invested Rs 32 lakh in the startup of Kapsime, five years his junior at the institute.

"It's a blessing to be well networked, especially for startups," says 25-year-old Kapsime. "It makes your initial journey a hell lot easier." Like Kapsime, his batchmate from IIT-D, Bhuwan Arora, too, met up with Singh, who took a hard look at his plans to scale his startup ReadersDoor, an online community for book lovers which ...

Of the 10 angel investments made by Singh, five are in startups run by his IIT-D juniors, four in businesses founded by grads from other IITs, and just one in a venture started by a non-IIT alumnus. While the investment in each startup ranges between Rs 20 lakh and Rs 60 lakh, Singh has invested under Rs 5 crore so far.

"It's not network but net worth. It pays to be connected, personally as well as professionally," says 31-year-old Singh who himself has turned entrepreneur with Spinny, an online marketplace for used cars.

Singh admits that he may be emotionally attached to his alma mater, but says that his business decisions are based on hard-asnails business logic. "At the end of the day you are investing money, so you have to be prudent," he says.

Over the past couple of years, like Singh, a slew of IITians has been systematically funding the ventures started up by the grads of their respective alma mater. The logic is simple: The odds of the next big thing coming out from an IIT are more attractive than from most other educational institutions. "Therefore, entrepreneurs from these institutes receive the maximum support and investment, placing them well to actually have a better shot at success than others," says Ganesh Nayak, who heads investor relations at LetsVenture, an online platform for angel investors that has enabled 37 startups to raise about \$10 million so far.

#### Times Of India ND 23/08/2015 P-14

# Indian startups lack vision and will to tackle big problems. But we'll get there

Rahul Alex Panicker, 35, is co-founder and president of Embrace Innovations, a Bengaluru-based healthcare tech startup that has done pathbreaking work in lowcost medical innovations. These include an awardwinning infant warmer that's been adopted by underserved communities in 15 countries and has helped save more than 2 lakh babies worldwide. Shrabonti Bagchi spoke to the IIT Madras and Stanford alumnus, who was named one of '35 Innovators Under 35' by the MIT Technology Review

#### FOR THE RECORD

How important is developing low-cost technologies for nations that struggle with infrastructure issues, such as lack of dependable power supply?

I have seen donated incubators being used as file cabinets. They make good file cabinets because they're sort of airtight and keep insects out, and have wheels to be pushed around. And why is this happening? Because the staff don't have the training to attach the probes right and set the right levels and are scared to use it. They need continuous electricity and simple UPSes sometimes won't do, and once they break down, there are no service networks available in small towns. And this came absolutely free. Just illustrates that low-cost doesn't always solve the problem. It is crucial for us to innovate products and services around the conditions we have in our country, like un-

reliable and widely fluctuating power, unreliable service networks, limited access to clean water etc. These rarely need any fundamental technology breakthroughs. All of these require product and business innovation. For example, in the West, babies are typically born in multi-specialty hospitals where ob-gyns and neonatologists are available. In our country, when born in facilities, babies are delivered in maternity clinics or PHCs/CHCs, where an ob-gyn handles the delivery. But if the baby needs special care, it has to be referred to a facility where there is a pediatrician (we have a shortage of neonatologists). So, transport is a significant use-case for us, and we had to make our product portable.

Recently, N R Narayana Murthy said there had been no major invention in India in the past 60 years, and that our elite educational institutes had failed in this respect. Do you agree?

Data supports the statement he made. He was referring to a list of 150 fundamental technological innovations from MIT alone that have had wide-ranging impact. These include email (the first email was sent at MIT), the transistor, the human genome project, radar, e-ink (which drives Kindle's display), colour movies, spreadsheets (any office worker who hasn't used Excel?), PET scans. I have trouble finding a comparable example of something that has come out of India. Norman E Borlaug's invention drove the Green Revolution that Dr M S Swaminathan championed and furthered in India. That's one example I can think of that comes close. But while Dr Swaminathan's

work, which made the Green Revolution real, took place in India, the first scientific breakthroughs were not done here.

Most innovations I see in the startup world or industrial research labs in India are product innovations, incremental innovations, or business-model innovations. I know of few examples of fundamental technological innovations. But I am hopeful it will happen as the tech-driven e c o n o m y around us develops.

There's a lot of excitement about startups in India, but aren't they somewhat 'me too' — ie, they follow existing successful models instead of doing anything pathbreaking?

I do think that there is a lack of big visionary thinking and the willingness to take on large problems. It will take a while longer before we have a Tesla or Google or Genentech happen here. Right now, it's a bit of a land grab going on. It feels reminiscent of the 2000 dotcom boom in Silicon Valley, but in a mobile and app-driven world. Easy money, high valuations, lots of consumer businesses, all chasing users with the hope of becoming viable some day. Some will succeed. Many won't. The startup ecosystem here feels like it is in its adolescence. Not the infancy we had seven years ago, when people didn't want to work for startups, or the investor landscape was forming. Not the stage where we have truly visionary companies taking on big problems. But we'll get there.

What can we do to take innovation and entrepreneurship to the next level in India?

A few things I can think of — create universities as opposed to engineering, medical, business, design, and law colleges. Innovation happens when people of different backgrounds think together, challenge each other, and help each other take innovations out. Our educational institutions are siloed. Also, continue with the current encouragement of startups. As a generation of entrepreneurs gain experience, they will take on new challenges, become role models and mentors, start collaborating and pushing technology pioneers, and even start funding them. Young scientists, engineers, doc-

tors, designers, business leaders have to grow more guts and spine. To stomach risk, to take on big challenges, to maintain intellectual integrity, and to stand up and face creative disappointment.

#### What's next for Embrace?

We are continuing to scale the reach of warmers, and developing a new product for the developing world. This involves sensors, Internet of Things, big data, and Artificial Intelligence

to revolutionize the monitoring and diagnostics of babies.

#### THE ECONOMIC TIMES magazine cover story

AUGUST 23-29, 2015

So when the duo decided to catch up over beer, Abhishek brought along his startup cofounder Nikuni Jain. The trio had a great time over eight bottles of beer, talked about their respective ventures and Jain asked Ronak to come for another meeting at his office in a week.

The next meeting turned out to be a formality. "The moment I entered his [Jain's] office, he said 'Yaar main to paise daal raha hoon' [Buddy, I am putting in my money in your startup]," recalls Ronak, who had cofounded Routofy, a travel planning portal that compares and combines flights, trains, buses and cabs in one search, with connections all the way down to the smallest towns and villages. In March this year, Routofy raised an undisclosed amount of seed funding from Jain and Snapdeal's cofounders Kunal Bahl and Rohit Bansal.

Ronak points out the investment is only the beginning; the advantage of having senior alumni as funders is that they can also serve as mentors. "As most of such investors [angels] are first-generation entrepreneurs themselves, their thinking, ideals and goals align with those of their juniors," he says.

Beer, it would seem, has proven to be a lubricant for many a deal - at least those involving Nikunj Jain. Anirudha Gupta, cofounder of online travel community Tripoto, first met Jain, his IIT-Delhi senior, at a pub in Connaught Place in central Delhi last October. On a balmy Sunday afternoon, after a few mugs, both started talking about their common interest: spiritual teacher Osho.

Exhausted after discussing spiritualism for an hour, the conversation inevitably veered around to the materialistic path: Gupta started sharing his business plans about Tripoto; Jain was listening. "It was then that he proposed to invest," recalls Gupta, who got angel funding from Jain in October 2014. This March, the Delhi-based startup raised its second round of funding led by IDG Ventures India.

#### A Method in Investment

Jain claims to have a method to his investment style. "My heart helps me connect with my kind of people, but it's the brain that makes the hard, financial calls," says the 26-year-old entrepreneur and angel investor, who has made eight investments so far totaling under ₹3 crore; half of them are in startups run by IIT-Delhi grads.

Jain is investing with his eyes open, aware of the likelihood of some of his money going down the drain. Sure enough, one of the startups he funded has all but failed. But as he says, "Business is all about hits and misses, trial and errors. If you don't take risk, there won't be any gain."

Though the lead in terms of investing in alumni startups has been taken by IIT-Delhi and IIT-Bombay grads, other IITs are also catching up. Like, for instance, IT-Roorkee.

When Prasoon Gupta, an IIT-Roorkee grad from the 2009 batch, decided to raise angel funds for his second startup Sattviko in February last year, he was flooded with offers. At least eight of them were IIT-Roorkee alumni, from different batches. Overwhelmed by the response, the 28-year-old closed his funding within four months. Sattviko has raised ₹2 crore in angel funding till now. "80% of your success is because of networking, and the rest is the business idea and the team," says the cofounder of the Delhi-based food chain that specialises in Vedic and vegetarian food prepared without onion and

And it's not always the seniors who tend to be the investors. In Sattviko, for **Zmanda**, a provider of backup and disaster

TOTAL INVESTMENTS: 50

BY IIT-KANPUR ALUMNI: 1

THE IIT CONNECTION: Cofounder Chander Kant is from IIT-Kanpur

**ASHISH GUPTA, 48** 

IIT-KANPUR, 1988 BATCH

INVESTMENTS IN STARTUPS FOUNDED

Kaboodle, a social shopping community
THE ITT CONNECTION: Founder Manish Chandra is
from IIT-Kanpur, 1987 batch

Shopsocially, a social commerce platform
THE ITT CONNECTION: Founder Jai Rawat is from THE IT CONNECTION: Foun IIT-Kanpur 1991 batch

**Obongo**, a provider of online wallet technologies **THE ITT CONNECTION:** Founder Jai Rawat is from IT-Kanpur 1991 batch

AMOUNT INVESTED IN 11T-K ALUMNI: ₹5-6 CRORE

cofounder, was the first to invest

It was a ragging session that brought the two Guptas together. Since then, the duo had stayed in touch and when in October 2013 Prasoon met Rahul at his Barakhamba Road office in New Delhi, the latter decided to invest. When Mark Twain said that familiarity breeds contempt and children, he forgot to add one more byproduct: funding," says Prasoon, bursting into laughter.

Down south at IIT-Madras, the IITM Startup Fund, created through a donation of \$6,00,000 from IITM alumni in 2013, has funded over 27 technology startups incubated at IIT-Madras. Tamaswati Ghosh, · chief executive of IITM Incubation Cell, says that IIT-Madras alumni are intimately aware of the entrepreneurial ecosystem on campus, as well as the various technology and knowledge innovations. "This means that promising startups are spotted

ing and other initiatives," she says. Moreover, the alumni are also aware of the structured checks and balances in place in IIT-M. which ensures the factor of trust, essential for creating confidence in ventures. "Today, networks are indeed the oxygen for startups," she adds.

Rahul KR, who is pursuing a BTech from IIT-Madras, is the founder of Clozerr, an app to store loyalty cards of one's favourite res taurants, which was nurtured at the IITM incubation cell. "Apart from team, idea and execution, what plays a key role in the success of a startup is the access to the right set of mentors," says Rahul.

Other premier non-IIT institutes too are leveraging the alumni network. Consider, for instance, what's keeping Raju Reddy, an alumnus of Birla Institute of Technology and Science (BITS), Pilani, busy. The founder of California-based Sierra Atlantic, an offshore enterprise applications and outsourced product company that was sold to Hitachi in 2011, has so far made nine investments in companies founded by BITS Pilani grads.

Reddy claims that BITS prepares students to succeed as entrepreneurs better than any college in India. "Hence as an angel investor, I improve my odds significantly," says Reddy.

There's little doubt, though, that the IIT tag goes a long way in securing funding. Shiju Radhakrishnan, a BTech from Mahatma Gandhi University in Kerala who followed it up with an MBA from SP Jain Institute of Management & Research in Mumbai, will grudgingly agree. The 34-year-old founder of iTraveller, a cloudbased travel discovery startup that allows users to plan, customise and book their holidays online across 450 destinations worldwide, had to toil for a good two years before he got hold of an angel investor.

The only red flag that I couldn't turn



TOTAL AMOUNT INVESTED SO FAR:

OVER ₹50 LAKH



₹3 CRORE



#### August 24

#### Amar Ujala ND 24/08/2015 P-08

# आईआईटी में इस साल घट गईं छात्राएं

## कानपुर, मुंबई में छात्राओं की संख्या बढ़ी, लेकिन रुड़की में घटी

कानपुर-वाराणसी-रुड़की। इस साल आईआईटी में प्रवेश लेने वाली छात्राओं का रुझान कंप्यूटर साइंस की तरफ रहा है। आईआईटी मुंबई और कानपुर में जहां इस साल छात्राओं की संख्या बढ़ी है, वहीं रुड़की में संख्या घटी है लेकिन आईआईटी बीएचयू में संख्या यथावत है। इसके अलावा केमिकल और बायोटेक्नोलॉजी इंजीनियरिंग में भी छात्राओं की रुचि बढी है।

आईआईटी में प्रवेश लेने वाली छात्राओं ने इस बार मैटलर्जी इंजीनियरिंग में भी रुझान जताया है, जबिक इसे लड़िक्यों के लिए बहुत बेहतर नहीं माना जाता है। पिछले वर्षों में आर्किटेक्ट, इलेक्ट्रिकल और मैथेमेटिक्स में अच्छा रुझान दिखा चुकी छात्राएं इस साल इस स्ट्रीम के प्रति अधिक आकर्षित नहीं दिखीं।

डीन ऑफ स्टूडेंट अफेयर प्रोफेसर एआर हरीश के मुताबिक आईआईटी कानपुर में इस साल विभिन्न ट्रेडों में दो फीसदी अधिक छात्राओं ने प्रवेश लिया। कंप्यूटर



साइंस एंड इंजीनियरिंग में सबसे ज्यादा 20 छात्राओं ने प्रवेश लिया। केमिकल, बायोसाइंस में भी छात्राओं की संख्या बढ़ी

इस साल आईआईटी बीएचयू में कुल 1050 विद्यार्थियों में छात्राओं की संख्या 82 है, जबिक बीते साल भी छात्राओं की संख्या आठ फीसदी ही थी।

पिछले साल छात्राओं ने जहां केमिकल

इंजीनियरिंग में अधिक रझान दिखाया था, वहीं इस बार मैटलर्जी इंजीनियरिंग में छात्राओं ने दिलचस्पी दिखाई है जिसे पुरुष प्रधान माना जाता है। आईआईटी रुड़की में इस बार कुल 987 दाखिलों में छात्राओं की संख्या 75 ही रही, जो करीब आठ फीसदी है। पिछले साल छात्राओं की संख्या 85 थी।

पिछले साल आर्किटेक्ट में 7 के बजाय इस बार 3 छात्राओं ने प्रवेश लिया।

### आंकड़ा

पिछले साल आर्किटेक्ट में 7 के बजाय इस बार 3 छात्राओं ने प्रवेश लिया।

इलेक्ट्रिकल इंजीनियरिंग में पिछले साल के 11 के मुकाबले इस साल 5, प्रोडक्शन इंजीनियरिंग में 4 के मुकाबले एक छात्रा और मैथमेटिक्स में 7 छात्राओं के मुकाबले इस साल दो छात्राओं ने ही प्रवेश लिया है।

इस साल बायोटेक्नोलोजी में 4 अधिक छात्राओं ने प्रवेश लिया। केमिकल इंजीनियरिंग में पिछले साल 11 छात्राएं थी जबकि इस बार 18 ने प्रवेश लिया, वहीं सिविल इंजीनियरिंग में पिछले साल 4 छात्राएं थीं जबकि इस बार 7 छात्राओं ने प्रवेश लिया है। ■

#### Business Standard ND 24/08/2015 P-01

# Govt may blink on IIM autonomy

HRD ministry officials assure institutes their concerns over draft IIM Bill will be addressed

VINAY UMARJI & KALPANA PATHAK Ahmedabad/Mumbai, 23 August

he Indian Institutes of Management (IIMs) might finally have their way on the autonomy issue, with the Ministry of Human Resource Development (MHRD) rethinking its stand on the draft IIM Bill, 2015.

While no official communication has been received by the IIMs so far, sources say MHRD officials are unofficially reaching out to the institutes, to express concern over the matter and assure them that the question of their autonomy will be resolved satisfactorily.

The IIM directors Business Standard spoke to said the ministry might have been taken aback by the kind of response the lack of autonomy in the proposed Bill generated, especially from the older IIMs. The directors, however, did not wish to be named,

because the matter was "controversial".

"MHRD has realised that IIMs are serious about their autonomy. It has unofficially reached out to the IIMs, expressing concern over the issue and assuring affirmative action. The ministry might soon come back with a revised draft. But we have been demanding that the ministry give us something in writing," said the director of an IIM.

The draft IIM Bill, 2015, proposes to grant statutory status to 13 existing IIMs — those in Ahmedabad, Kolkata, Bengaluru, Lucknow, Indore, Kozhikode, Shillong, Raipur, Ranchi, Rohtak, Kashipur, Tiruchirappalli and Udaipur—and declare those as 'institutions of national importance', to enable them to grant degrees to students for the academic courses they conducted.

However, the draft Bill also calls for subjection of the Board of Governors (BoG) to governWHAT THE BILL PROPOSES

- Grant of statutory status to the 13 existing IIMs
- Declare these IIMs 'institutions of national importance'
- Enable them to grant degrees to their students for the academic courses conducted by them

#### THE STICKY ISSUE

The draft Bill also calls for subjection of the board of governors of the institutes to government control for any regulation. The regulations could range from appointing chairpersons and directors, to fixing fees and staff remuneration, and deciding curriculum

ment control for any regulation — that is, for things ranging from appointing chairpersons and directors to fixing fees and staff remuneration, and deciding curriculum. The IIMs have

argued that the current form of the draft is not what had been agreed upon by the institutes at their meeting with MHRD in October last year.

"Though we want to pro-

vide our students with degrees at the end of the course, we do not want that at the cost of our autonomy. There have been whispers about MHRD going back to the original draft of the IIM Bill, but we have not received any communication

on the Bill so far. We would prefer to have the communication in writing," said the director of an IIM.

While some of the older IIMs (those in Ahmedabad, Bengaluru, Calcutta, Lucknow, Indore and Kozhikode) are happy to continue offering post-graduate diploma in management (PGDM) certificates, the newer ones want powers to grant degree, since an MBA degree is believed to carry more weight in academics and industry than a PGDM.

In fact, it was this argument of the latter that the government had latched on to for proposing changes to the draft Bill.

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#### FROM PAGE 1

#### Govt may....

"So far, these institutions could award only certificates, post-graduate diplomas, and fellow programmes in management certificates. These lacked universal acceptance in the field of academia and research. The PGDM programme was relatively unaffected by the absence of a formal degree, both in terms of recruitment of students and suitable placements in the job market.

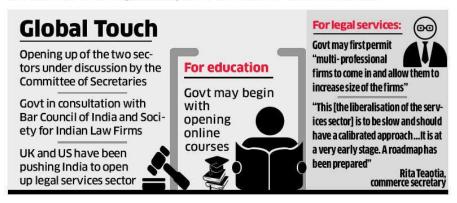
But the fellow programme

in management did not get the same status as that of a PhD in the job market, especially in faculty appointments. So, the fellow programme (equivalent to PhD), without the formal degree stamp, has not been able to attract talented students.

That is required to develop a strong research base in the country in the field of management education and to address the issue of faculty shortage affecting management institutions. The proposed Bill will address this gap," MHRD had said while putting up the draft online for public consultation.

# Education, Legal Services May Be Opened Up

**Going Slow** Govt following 'calibrated approach' to allow foreign players to enter the sectors



#### **Press Trust of India**

**New Delhi:** The government is following a "calibrated approach" to open its education and legal services for foreigners, a move aimed at boosting country's services sector.

Commerce secretary Rita Teaotia said that work is under progress for opening education and legal services for foreign players.

In a country like India, "this [the liberalisation of the services sector] is to be slow and should have a calibrated approach ...It is at a very early stage. A road map has been prepared," she said. Explaining about the country's approach to open education sector, the secretary said, in the beginning, opening online courses could be an option, "Indira Gandhi National Open University (IGNOU) is doing something. Some professional bodies are also offering online courses. So, when we have such strong technical institutions with high reputation, they can do more of opening online courses and make those accessible to other countries. So, this could be one step," she said.

About opening legal services for foreign players, she said the commerce ministry's intention is to work with Bar Council of India (BCI) to move in a direction which is "calibrated and always reciprocal".

"...so the first step should be to look at our domestic sector. How do we make an environment which allows for the growth of our legal services sector," she said.

She said that the road map developed by the Department of Commerce with stakeholders is to first permit the "multi-professional firms to come in, and to allow them to increase size of the firms". "So, these could be early stage reforms which we would touch on. In next stage, we can have consultation with the BCI," she added.

Opening up of these two sectors is under discussion of the Committee of Secretaries (CoS). The government is in consultation with the Bar Council of India and Society for Indian Law Firms to open up legal services sector to foreigners in a calibrated manner.

The UK and the US have been pushing India to open up the sector to foreign firms. The Advocates Act, administered by the BCI, provides for foreign lawyers or law firms to visit India on a reciprocal basis for temporary periods to advise clients on foreign law and diverse legal issues.

### Stage set for Gaya IIM opening

http://timesofindia.indiatimes.com/home/education/news/Stage-set-for-Gaya-IIM-opening/articleshow/48640713.cms

GAYA: With the formal registration for the first batch of IIM students starting 24 August, stage is set for the much awaited beginning of the prestigious business institute. The institute will start functioning from its temporary campus located in the Directorate of Distance Education Building in the Magadh University premises. The University has already committed itself to transfer 119 acre land for the construction of the IIM campus. The new campus is likely to be ready in the next three years provided everything went right.

According to Israil Khan, Director, Distance Education MU, the IIM team has already arrived and the registration process will begin Monday morning. The first batch will formally be inducted on 25 August. For the next few days, the students would be familiarising themselves with the institute, its requirements, culture and other details. Classes will formally begin on 31 August'2015.

The institute has requisitioned five rooms for the exclusive use of faculty members, said Khan. Accommodation for the faculty members has been booked in the recently renovated university guest house.

Though the IIM Nodal officer Mahesh Patnaik was not available to provide details, sources say that half of the 60 seats for the first batch remain vacant. Only 30 students have opted for the Gaya IIM. Sources attribute the somewhat poor student response to the inaugural batch to the high cut off mark and reluctance on the part of better quality students to enrol themselves in a new institute that is likely to face many a teething problems including faculty deficit and likely reluctance of major job providers to recruit personnel from a new born institute.

According to Israil Khan, as per his information, not a single girl student has opted for the Gaya IIM.

The admission committee fixed 96.30 as the minimum CAT score for general category candidates. OBC candidates with 78.98 Combined Admission Test percentile were eligible for admission to the new institute. The minimum percentile for SC and ST candidates was fixed at 63 and 50.71 respectively.

Sources say that one more round of counselling was likely to be held shortly to fill the remaining 30 seats in the inaugural batch of IIM Gaya. Gaya is not the only institute to face this kind of problem. Almost all IIMs had to face more or less similar problems in the initial period of their existence.

# IIT Delhi student's wearables lands him 'Promising Young Entrepreneur' award in Singapore

Press Trust of India | August 24, 2015 at 1:03 pm

http://yourstory.com/2015/08/iit-delhi-students-promising-young-entrepreneur/

A 22-year-old IIT Delhi student has been named as the most Promising Young Entrepreneur at a business competition in Singapore. Chiraag Kapil, led a team of five from Indian Institute of Technology, Delhi, in the 8th Lee Kuan Yew Global Business Plan Competition and won the award prize of USD 5,000 last night. "I feel brilliant. It is one of the most exciting things that happened in my life. (I am) very privileged to be called Most Promising Young Entrepreneur", Chiraag told PTI after receiving the award.



Chiraag's team Leaf from IIT Delhi also won the second prize of USD 12,000 for its revolutionary smart pendant called SAFER, which together with an app, serve to enhance the safety of women. When a woman feels threatened, she just needs to press SAFER twice. An alert and her location will be sent to the people she had pre-designated as Guardians, as well as nearby SAFER users who will be able to track her location real-time by navigating on maps.

The SAFER app is installed on mobile/cell phones for transmitting messages. SAFER is developed by five co-founders of Leaf Innovation Pte Ltd, a start-up from IIT Delhi which is seeking USD 500,000 funding to expand its jewelry-embedded app product globally. About 50,000 SAFER-embedded pendants are worn by women in India and Turkey, with another 10,000 pre-orders from India and Europe, said Leaf team leader Paras Batra who along with Chiraag received the awards last night.

"We will be expanding to South East Asia and the United States in one year", said the 22-year old Batra, who along with Manik Mehta, Ayush Banka, Avinash Bansal and Chiraag have started on the path of

entrepreneurship. Team BLITAB from Austria's University of Applied Sciences Technikum Wien took the first prize of USD 36,000 after beating five other finalists in the entrepreneurship awards. The team has developed the world's first tactile tablet for the blind and the visually impaired.

BLITAB is a next generation, affordable and multi- functional device for braille reading and writing that displays an entire page of braille text without any mechanical elements. Pictures and graphics like maps and building plans can be presented on the device with tactile relief, opening a completely new world of content to the visually challenged. Team Life Collar from the Institute of Business Administration at Bangladesh's University of Dhaka won third prize of USD 3,000 for their cervical collar for accident and work-related injury victims.

Using bamboo as the main structural base, along with cane and wicker strips, the collar is less costly than neck braces which are not easily available in Bangladesh. The other finalists were Team caneTin from Bangladesh's University of Dhaka, Team Hajj Guider from Pakistan's Comsats Institute of Information Technology, and Team NutriMilk from Bangladesh's University of Dhaka. The teams were awarded consolation prizes of USD 500 each. This year's competition received 185 submissions from 445 students studying in 140 universities across 44 countries. Named after Singapore's founder Prime Minister, the late Lee Kuan Yew, the biennial award was incepted in 2001.

### **IIT-K** inspires students to work in India

Abhinav Malhotra, TNN | Aug 24, 2015, 11.04 AM IST

http://timesofindia.indiatimes.com/home/education/news/IIT-K-inspires-students-to-work-in-India/articleshow/48649166.cms

KANPUR: IIT, Kanpur (IIT-K) has started 'Work for India' campaign which is aimed at inspiring students of this institute to stay in India and work for its development. This campaign is being launched as every year several students of the institute after graduating from here settle in the western countries either doing jobs or pursuing Ph.D course.

Several alumni of IIT-K, working at top positions in the government and the semi-government organisations, have extended their whole-hearted support to the campaign.

Prof Indranil Manna, director, IIT Kanpur, said that the institute, with a similar vision, has initiated 'Work for India' campaign in order to inspire its students to work in public sector companies, Indian Engineering Services (IES) and government or semi-government organisations. This step of the institute has been supported by its alumni community and also by the Government of India, he said.

"Its is a fact that many students who had studied in elite institutions like IITs, have shifted towards lucrative foreign packages and are pursuing their career in multinational companies. To achieve and uphold 'Make in India' and the 'Vision 2020' dream, India requires these bright students to stay and contribute towards betterment and advancement of the nation", said Prof Manna.

On Saturday, IIT-K had invited top notch technocrats like general managers of Indian Railways, NHPC, ONGC, GAIL etc, who addressed queries of hundreds of the students and tried to inculcate enthusiasm among them. Ajit Kumar Mishra, AGM, Indian Railways informed them about the challenging and demanding opportunities which are available in Indian Railways. The students were astonished when Amod Kumar Agarwal, general manager of NHPC, told them about power, authority and perks available in public sector companies. Speakers also guided the students about the entrance exams, including the preparation strategy, choice of subjects and time management. A few senior consultants threw light on

various aspects and perspectives of working in such jobs.

Prof BV Phani, dean of resources and a IIT-K alumni, said that this month, much ahead of the placement season of the campus, the institute has geared up to motivate the students to opt for jobs in India via a series of sessions, awareness talks and one-to-one interactions to be held with some distinguished alumni of the institute. He said that these alumni will be resolving some major myths related to working in government jobs as well as the bright career opportunities that lie ahead for the fresh talents of the campus.

The Alumni Contact Programme of IIT-K has been closely working with the institute administration and has organised career counseling sessions to promote research and its 'Work For India' concept, he added

# 'In next 10 years, IIT-Ropar will become a world-famous institute'

Hindustan Times (Chandigarh)

RUPNAGAR: The director of the Indian Institute of Technology (IIT), Ropar, Prof Sarit Kumar Das on Sunday delivered a special lecture at the local Rotary Club.

Prof Das informed the gathering about the new courses to be started by the IIT in the next five years.

He said that IIT Ropar will be shifted to a new campus by 2017 and become a "world famous" institute in the next 10 years.

Das said the setting up of the campus will accelerate the development of Rupnagar town.

Rotary Club Rupnagar president JK Sharma highlighted the social welfare activities being undertaken by the club. Former district governor, Rotary International, Dr RS Parmar also spoke on the occasion.

#### Financial Express ND 24/08/2015 P-06

#### Digital India in education

# Open up online learning

### Platforms such as MOOCs can make higher education accessible for students in far-flung areas



TV MOHANDAS PAI & SHOBHA MISHRA GHOSH

igital technology started to impact the way of life in India in a significant manner in the last 5 years. In the 1970s, having a landline telephone was a luxury. Today, India ranks third amongst the top countries of smartphone users, second in mobile phones with over 1 billion connections. By 2020, India's mobile economy will contribute \$400 billion to GDP, there will be 500-million-plus broadband users and the country will have the largest Facebook population.

The Digital India initiative of prime minister Narendra Modi, for mission-mode implementation, therefore, is timely. Through digitisation, the government aims to ensure availability of government services to all citizens electronically, thereby reducing paperwork and corruption, to connectrural areas with high-speed internet networks as well as to promote digital literacy among the citizens of the country. Using Digital India for education by giving every student access to the internet, via a tablet or some other device (with rich multimedia content) will transform society in 5 years as no other government programme can, that too at a low cost.

The Indian higher education system has to undergo massive expansion

to accommodate 70 million students by 2030, as per the FICCI-EY Higher Education Vision 2030 report. This expansion will be possible only through extensive use of ICT tools, or else, we will have to build 6 universities and 270 colleges every month for next 15 years to meet the demand—a feat that is near impossible given our limited resources. To remain relevant in contemporary economies and societies, our universities will need to fully embrace technology in all aspects of their operations—administration, teaching/learning and research.

Digital India is a promising opportunity to use technology to revitalise our education system and address the huge learning crisis that our country faces. Innovative technologies today are creating new forms of adaptive the gap in quality of education to some extent, give every child access to the best global content and level the playing field across India. The existing schemes like the National Knowledge Network (NKN) and National Mission on Education through ICT (NMEICT) should be made more effective and efficient by formulating clear policies with involvement of all stakeholders in planning and execution.

Today, there is a disruption in the process of learning and this is going to accelerate with time. Technology can create individual learning paths, make learning interactive and fun through gamification and provide numerous practice opportunities. Every student can have access to global content at a low cost, have differentiated and individualistic learning, improve quality

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and peer learning, increasing access to trainers and mentors, and providing useful data in real-time. This implies that Digital India should empower every Indian, especially the youth, and give access to the web and a device, particularly to those who cannot afford it.

According to the World Bank, in 2010-14, only 15% Indians had access to internet. This situation needs to be corrected urgently and adequate bandwidth must be given to ensure fast and uninterrupted connectivity for all schools and universities/higher education institutions across the country. Every child in Class VI and above should be provided with a tablet with rich multi-media content connected to wi-fi and 3G. This will bridge

of earning, get access to assessment, quizzes, etc, to learn at their own pace.

Personalised digital learning platforms such as Khan Academy, Mindspark, BYJU's Classes, etc, allow students to learn and master skills at their own pace and time. These products help students to receive instant feedback. Khan Academy already receives the third-highest number of users in the world from India, indicating the latent demand for such content.

Online platforms and ICT tools have the potential to take education to millions of students at far-flung areas who would otherwise have no access to university education. Ensuring that every college, every university is connected to the internet, giving every college student a tablet with rich multimedia courses and videos of courses by globally-renowned teachers will ensure greater access to quality education.

Massive Open & Online Courses (MOOCs) have been adopted by some of the best universities abroad and in India. Reluctance to adopt this changed pedagogy by both teachers and administrators is a roadblock in introducing MOOCs or SPOCs (Small Private Online Courses). Regulations always respond to change slowly but the learning process is already disrupted. We must recognise, embrace and adopt this change. The current policy of the Centre restricting online education by a university to only within a state where it is located is an example of how bad policy is holding up development. We need our universities to offer online courses throughout the country giving students the right to make their choice and choose the best course. Just like GST will create a common market for India, online education should create a common platform for the whole of India, empowering students and giving them the ability to make choices. This will ensure a flight to quality and availability of the best courses to all students reversing the trend of declining quality.

Digital India means empowering every Indian and that means access for all. In education Digital India if implemented with vision and commitment, can transform society and give access to quality education to all students irrespective of means, location, gender and other limitations. We hope our prime minister will use Digital India to transform education rapidly.

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#### Financial Chronicle 24/08/2015 P-11

# Starting a business

AILURE is not the end of the world but just a stepping stone to success. Nothing could be truer than this to the entrepreneurial journey of gutsy Ambarish Gupta, who founded his own company called Knowlarity Communications in 2009. A successful cloud telephony business employing 550 people and making huge money. But the fact that he was able to successfully raise a total of \$24.5 million funding at various stages indicates the angel in-

vestors are in good company.

"I always dreamt of owning a business," Gupta told me. So, to master the tools of the trade, he took engineering at IIT Kanpur. In fact, he is the first person in his family to take up a professional course and eager to launch his own business. After graduating, and working for three years in the Silicon Valley, he returned to India in 2004. He set up an online real estate brokerage company called Inventica, but it did not take off as it was not a good time for online business to flourish and no venture capitalist was ready to invest in the business. So, he went back to the US, and armed with an MBA degree, did a brief stint with McKinsey & Company. He soon quit his well paying job as he once again started toying with the idea of owning a start up.

In 2008-2009, he returned to India when the consumer telephony was at its peak in India. The idea was to build a platform which was flexible and did not require too much hardware support. "I approached some job searching portals and other companies and told them that I could give them a phone number with a welcome message and that too without any hardware and at a low cost," That is how Knowlarity company was born. His first breakthrough came when Odisha's CM Naveen Patnaik contracted Knowlarity's Enterprise Telephony for his political campaign and promotions. Knowlarity's services were used to reach out to 70 lakh people in the state. Being at the right place, and at the right time worked for him. The rest, as they say, is history.

Michael Gonsalves