## Newspaper Clips December 21-22, 2014

### December 21

## IITs to offer scholarship for foreign students

DC | N. ARUN KUMAR | December 21, 2014, 06.12 am IST

http://www.deccanchronicle.com/141221/nation-current-affairs/article/iits-offer-scholarship-foreign-students

**Chennai**: The Standing Committee of the Indian Institute of Technology's Council (SCIC) has consented to provide scholarships to its undergraduate students from countries like Myanmar, Philippines and Korea who want to pursue post-graduation and research there.

The IIT Council, which met in September, is expected to clear SCIC's recommendation soon. Prof. Gautam Biswas, director of IIT-Guwahati, said that students from South East Asian countries, like the Philippines, Mongolia, Korea and the Arab countries too, who had a good academic record and interest in research could apply.

"We get good quality students from South Asian countries too and they want financial incentives. All directors of IITs felt that in a globalised world it would be foolish to miss them," he said.

Union HRD minister Smriti Irani wanted the IITs to admit good quality postgraduate students who could do world class research and increase India's research output, he added. Asked about the ranking committee, which the IIT Council constituted in its recent meeting in September, Prof. Biswas said that the ranking committee tried to sensitise IITs and universities across the country about the need to get ranked in global university rankings.

"Despite doing high class research and having a good teaching-learning process, Indian universities don't have good visibility among universities globally. So the ranking committee has been telling the Indian universities which areas they need to focus on more to get ranked in global university rankings," Prof.Biswas added.

#### Hindu ND 21.12.14 P-2

## Workshop on earthquakes at IIT-Delhi

Vijetha S.N.

NEW DELHI: How well equipped are our public spaces to deal with an earthquake? Is there a better way to prevent maximum damage to our buildings in the event of a substantial seismic activity?

The Indian Institute of Technology-Delhi is organising a two-day workshop, "Emerging Trends in Earthquake Engineering and Structural Dynamics", which began on Saturday, to answer all these questions and more.

## Vulnerability

Eleven distinguished speakers in the field of earthquake engineering from across the country will deliver lectures on topics like review of earthquake safety in our country, seismic vulnerability assessment of buildings, bridges, large dams and nuclear structures, structural health monitoring, and vibrationmitigation techniques.

Day One had seminars on seismic vulnerability of nonengineered structures, earthquake engineering in India and seismic design and re-assessment of nuclear facilities in the morning session.

#### Seismic safety

The second session had seminars on active and passive control of structural systems, seismic safety of large dams — a case study of Tehri dam and characterisation of earthquake ground motions.

Day Two will cover topics like structural control of piping systems, stochastic control of dynamic structures and Bayesian methods for model updating in structures will be discussed in the morning.

The second session will discuss stochastic processes in structural mechanics and structural health monitoring of railway bridges.

#### Main objective

The main objective of this workshop is to provide a glimpse of state-of-the-art and emerging trends in the field of structural dynamics and earthquake engineering, and to provide a platform for participants to interact with eminent researchers from across the country.

Times Of India ND 21/12/2014 P-25 FIGUR To determine top US colleges' overall smarts, a Duke University Talent Identification researcher analyzed average standardized test scores reported by them **How Smart Are** e Students? How do America's elite universities compare in terms of sheer student brainpower? »1505 PRINCETON UNIVERSITY »1505 HARVARD UNIVERSITY »1505 YALE UNIVERSITY »1485 COLUMBIA UNIVERSITY »1460 DARTMOUTH COLLEGE »1450 **UNIVERSITY OF** PENNSYLVANIA »1435 **BROWN** UNIVERSITY »1420 CORNELL UNIVERSITY **OVERALL** AVERAGE W SMARTS SMARTS RANK 'Smarts rank' is the ranking between Ivy League colleges; 'Overall Smarts Ranks' is ranking among all colleges that submitted scores. Possible scores on the SAT are between 600 and 2400 Source: businessinsider.in

## Business Standard ND 21/12/2014

P-7

## Google offers IIT student Rs 1.7 cr

JAIPUR, DHNS: Software giant Google has offered an annual package of Rs 1.7 crore to a Jaipur boy pursuing his engineering from IIT Mandi in Himachal Pradesh.

Shubham Ajmera, 23, is the second student to be offered such a huge pay package this month. Ten days ago, Jaipurbased Astha Agarwal was offered an annual package of Rs 2 cr by Facebook. Shubham is pursuing his last semester of engineering from IIT Mandi. and is currently interning with a prominent company in Bengaluru. He will join the job as "Software Engineer In Test" at the Google headquarters located at Mountain View in California. "Shubham had given an online test for this position, which was followed by five rigorous rounds of interview. After he cleared all the tests. Google offered him an annual

package of Rs 1.7 crore. He will join in May next year," said his father K C Ajmera, chief manager with National Bearing

Company in Jaipur.

Shubham was offered good jobs by two other companies as well, but he has decided to join Google, added the proud father. Jubilations are on in full swing at Shubham's residence in the Sanganer area of Jaipur. Mother Sunita and other family members said Shubham had cleared IIT entrance exam in 2011 ranked 4,289. He was slightly dissatisfied with his performance as he was aware he might not get admission in any of the prestigious IITs with that rank. Shubham was clear that he would not waste another year preparing for IIT. He was keen to take admission in computer science, and IIT Mandi was the best option," said his father.

## Amar Ujala ND 21/12/2014 P-6

# जेईई मेन की तारीख बढ़ाई

अमर उजाला ब्यूरो

नई दिल्ली। जेईई मेन के लिए आवेदन से चूके उम्मीदवारों के लिए राहत की खबर है। केंद्रीय माध्यमिक शिक्षा बोर्ड ने जेईई मेन (2015) में ऑनलाइन आवेदन की तिथि को आगे बढ़ा दिया है। अब तक आवेदन करने की अंतिम तिथि 18 दिसंबर थी जिसे बढ़ाकर 26 दिसंबर कर दिया है। सीबीएसई को अंतिम तिथि बढ़ाए जाने को लेकर अभिभावकों, उम्मीदवारों व स्कूल की ओर से आग्रह किया जा रहा था। इसके बाद सीबीएसई ने यह फैसला लिया।

सीबीएसई के मुताबिक अंतिम तिथि के बाद सीबीएसई को ऐसे उम्मीदवारों की ओर से आग्रह किया गया जो कई कारणों से ऑनलाइन आवेदन नहीं कर पाए। ऐसे में सीबीएसई नहीं चाहता कि इच्छुक उम्मीदवार आवेदन करने से चूकें। लिहाजा आठ दिनों का अतिरिक्त समय ऑनलाइन आवेदन के लिए दिया जा रहा है। इसके साथ उम्मीदवारों के तिथि बढ़ाने के आग्रह पर सीबीएसई ने लिया निर्णय

अब तक अंतिम तिथि 18 दिसंबर थी, अब बढ़ाकर 26 दिसंबर की गई

ही फोटो, हस्ताक्षर की इमेज को भी 26 दिसंबर रात 11 बजकर 59 मिनट तक अपलोड कर सकते हैं। वहीं, क्रेडिट व डेबिट कार्ड के जरिये फीस का भुगतान 27 दिसंबर रात 11 बजकर 59 मिनट तक किया जा सकता है। जबकि ई-चालान के माध्यम से बैंक के कार्य समय तक ही शल्क जमा किया जा सकता है। सीबीएसई की ओर से यह साफ कर दिया गया है कि बाकी किसी तरह का बदलाव आवेदन में नहीं किया गया है। अब आवेदन की तिथि को किसी भी सूरत में आगे नहीं बढ़ाया जाएगा। लिहाजा जिन्होंने अब तक आवेदन नहीं किया है वह जल्द से जल्द आवेदन कर दें।

## Women should stop feeling guilty and learn to prioritize

When she is not mentoring women technologists on how to make a mark in a man's world or giving power-point presentations to her team, Padmasree Warrior is painting or meditating to reboot her soul. The chief technology and strategy officer (CTO) of the \$40-bn Cisco Systems, Warrior is one of the most influential people in tech today. Not surprising that she made it to the Forbes list of the 100 most powerful women globally. Her boss, CEO John Chambers, describes the IIT Delhi alumnus as "one of the sharpest technology persons in the world". In an interview with Seethalakshmi S in San Jose, US, Warrior talks about gender diversity and intelligent lifestyles

### FOR THE RECORD

Internet of Everything (IOE) is the new catchphrase to describe a connected world where people will live smart lives leveraging technology. How powerful is it?

It is very powerful. To me it means an intelligent lifestyle for citizens. Whether it is

disposing of the city's waste or the parking problem, it means doing it intelligently. And it is bound to pervade everything... health, education and even farming. It is devices talking to each other to make our lives more convenient. Who knows, the next step would be to do away with a personal assistant and some device (sensor) in your body telling you when is your next meeting. It's all going to happen and sooner than we realize.

### What is India's role in the IOE?

India is one of the most happening countries. There is a huge opportunity there. When Prime Minister Modi talks about digitization, this is it. We have the technology, we must leverage it everywhere — across sectors. Look at the traffic in Bangalore, it's atrocious. Can we manage it better? Yes, we can by leveraging technology. As cities urbanize, we must use technology to make it convenient for citizens to live in them. We truly live in an app world — apps today are the oxygen of business.

## The tech sector is making rapid strides. Where are women in this scheme of things?

We pride ourselves on technological advancement but we are not doing great at all in allowing women in that space. At least that's what the data cave. There



must change this stereotype. Today, companies have a huge responsibility to bring more women into the technology space. At Cisco, we have women occupying top positions. Our ratios are much better.

You once said there's no such thing as a work-life balance and that it's more about integration. Why?

To me balance suggests there is a conflict between work and family, specially for a woman. Women are always seen as the ones caught in a conflict. Hence I prefer to use the word integration. This means the woman has to tell herself it is ok not to be perfect in both. We need to prioritize. There are some days when you must tell yourself that work is priority, so go ahead and give it your best shot. And then if there is a family occasion, the family gets priority. So I am saying, integrate. That's the best way to have both. Parents with young children must integrate their lives with work and their hobbies. Don't neglect anything. That's when guilt creeps in.

## But Pepsico CEO Indra Nooyi has said women cannot have it all, and they die of guilt....

There is no denying the guilt, because most women always have a prefix or suffix. When someone pays us a compliment for good work, we don't take credit so easily because the guilt that we have achieved this by sacrificing something else is always lingering. Today, my 20-year-old son is my mentor. He tells me not to feel guilty for anything. I am saying, don't feel guilty. Go ahead and take that break from work/career. Do what is right. Prioritize and integrate.

#### What is your detox mantra?

Poetry, dance and painting. I also meditate every day. But I do it at the end of the day though people say it's better in the mornings. Meditation breaks me from the digital world and brings me to the physical world. After I meditate, I don't use the laptop, phone etc. It's all completely off. I move to

weekend, I host events at my home for women who are engaged in start-ups. I network with them. It's so important for me. This is my way of giving back to society and encouraging women.

## Hindustan Times ND 21/12/2014 P-9

## UCMS to be back with Delhi govt

### Shradha Chettri

shradha.chettri@hindustantimes.com

NEW DELHI: The University College of Medical Sciences (UCMS) will soon be under the administrative control of the Delhi Government. As a result, it is expected that a few seats in the college will be reserved for students from Delhi.

UCMS is currently affiliated to the Delhi University. But, without a hospital of its own, it is associated with Guru Tegh Bahadur Hospital (GTBH) as well. This brought the institute under two administrations and complicated matters in terms of functioning.

"For organising any event, we have to seek permission from both the UCMS principal as well as the medical superintendent of GTBH. The transfer will save us the hassle," said a third year student of the college.

On October 1, the Ministry of Human Resource Development (MHRD) had directed the DU to implement the cabinet decision on the transfer within one month. The University has also replied in compliance. "We had received a letter from MHRD and reply has been sent. We are complying with the decision of the Cabinet," a university official said. Sources said, the modalities for transfer are being worked out.

The transfer may also bring relief to many junior faculty members who have been complaining of unfair transfer policy.

The DU however, did not support the move. They complain that the institute's standard of medical education, research and academic research will deteriorate once it is transferred.

## Higher education in India slipping into bottomless pit

http://www.americanbazaaronline.com/2014/12/19/higher-education-india-slipping-bottomless-pit/

NEW DELHI: Like his much touted development agenda, Prime Minister Narendra Modi is losing his grip over the education agenda as well.

Higher education both in the University Grants Commission and at the Ministry of Human Resources are run by very mediocre bureaucrats. Important bills on foreign universities and restructuring of University Grants Commission were withdrawn from the Parliament by the present government.

That the development agenda is no longer getting the attention is clear from the number of critical columns in newspapers and the negative coverage by influential talk shows. Even sympathetic secular and mainstream commentators are beginning to turn against the government after the Rashtriya Swayamsevak Sangh and its other affiliates began aggressively pushing their Hindutava agenda, which is distracting national and global narratives of post-UPA story of India's economic development.

Intellectuals, corporate leaders and journalists who strongly backed Modi during and before the 2014 general elections are blaming the mediocre and spineless bureaucracy for the government's inability to shine the spotlight on the growth story.

They are urging the prime minister to bring outside experts and park them in his secretariat and in key ministries like Human Resource Development, Science and Technology. Such experts, they think, will have the energy to bring new ideas and have courage to speak their mind.

A case in point is Raghuram Rajan, Governor of Reserve Bank of India, a rank outsider who has the capability and courage to speak his mind, gives the right advice to the Prime Minister and Finance Minister on economic policies.

While delivering Bharat Ram Memorial Lecture in New Delhi on December 12, he suggested that India should focus on not just "Make in India," but also "Make for India." The export-led growth model may not work for India at this point of time, even though China and other Asian economies may have hugely benefited from this model.

Rajan also recommended rollout of the goods and services tax (GST) as a "well designed GST bill, by reducing state border taxes, will have the important consequence of creating a truly national market for goods and services, which will be critical for our growth in years to come."

Not surprisingly, Rajan, who is on leave from University of Chicago as a professor, also emphasized in the same speech that India must invest in "idea-producing institutions – research departments of official bodies, think tanks, as well as universities."

One educationist who has ideas and courage to lift higher education from the pit is Professor Bhanu Pratap Mehta of Center of Policy Research. He has right credentials and background to re-organize higher education, which will empower 60 percent youth of India and will provide skill manpower to fuel manufacturing and other sectors.

The growth story of India will gridlock if present dispensation in higher education is allowed to continue. Mehta has rightly suggested in his recent opinion in The Indian Express on December 13 that every single proposal under discussion, from mad ideas like common act for all central universities to centralized recruitment of faculty and admission, will destroy public higher education in India.

The purpose of central universities is to serve special needs, apart from serving as institutes of national importance attracting faculty and students from all over country. The Legislative Council of India passed acts in 1857 to establish universities at Calcutta, Bombay and Madras. Later University of Punjab (1882), Allahabad (1887), Banaras (1916), Patna (1917), Aligarh (1920) and Delhi (1922) were established.

When education was transferred as a subject under the provincial government, all universities except Banaras Hindu University and Aligarh Muslim University were transferred to provincial governments. After independence the Constituent Assembly decided to list education under union, state and concurrent.

Central universities should be allowed to grow without imposing Common Act, which curtail their unique character as centers of excellence.

## IIT Kharagpur Techno Fest from Jan 30

http://www.newindianexpress.com/states/andhra\_pradesh/IIT-Kharagpur-Techno-Fest-from-Jan-30/2014/12/19/article2578599.ece

HYDERABAD: The annual techno-management fest of IIT Kharagpur, Kshitij is being held this year between January 30 and February 2. Deemed as Asia's largest techno-management fest, its magnitude can be understood by its huge prize money worth more than `60 lakh and the total participation of more than 65,000 students from 1,400 colleges across the country last year.

The fest, in short, comprises events, guest lectures, workshops and exhibitions. In previous editions of Kshitij, there have been numerous events that were certified by world-renowned institutions such as ASME, IMechE, AIChE, ACM and IEEE, to name a few.

Apart from the events, Kshitij also conducts guest lectures from eminent personalities some of whom from the previous editions are Alan Emtage, Jimmy Wales, Jonathan Forman, Prabhu Chawla (Editorial Director of The New Indian Express), Amitabha Ghosh, Naseeruddin Shah and Nawazuddin Siddiqui, to name a few.

In Kshitij 2014 there were exhibitions on Nao Robot(New Zealand), Paper Tab(Canada), Touchwall(Austria), and Miniature Models(India).

Kshitij has introduced, in this edition, a number of new events which includes events based on case study analysis, financial planning, latest innovative technologies and much more.

The abstract submissions for a number of events have also started. The deadline for submission of abstracts for the event is Dec 20.

Kshitij 2015 has also launched its official blog 'Kronicle'. Two articles have been released on Kronicle till now, the first one regarding the peace campaign, and the second one on relativity. Apart from the submission events, two online events, Woodstock and Forex have been launched. Interested students may log on to bazaar.ktj.in for playing.

Students may visit the Facebook page of Kshitij, IIT Kharagpur and official website, www.ktj.in, for registration

## **IIT Roorkee Emerges Winner in Global Programming Contest**

http://www.newindianexpress.com/states/kerala/IIT-Roorkee-Emerges-Winner-in-Global-Programming-Contest/2014/12/17/article2575208.ece

KOLLAM: IIT Roorkee emerged as the winner of the semi-final round of the ACM International Programming Competition held on Amrita University's engineering campuses in Amritapuri and Coimbatore on Tuesday.

'Team 3 spades' which represented IIT Roorkee topped the list of winners in the contest considered as the 'Olympics of Programming.'

The second position was won by the 'Team JU\_ Assassins' from Jahangirnagar University in Bangladesh and the third position by 'Team Believe' from IIIT Hyderabad. Teams which cleared the semi-final round will participate in the international finals to be held in Morocco, Africa in May 2015.

In all, 750 students belonging to 255 teams from over 150 colleges in India and Bangladesh took part in the semifinals. Participants from India come mostly from national premier institutions like IIT, IIIT, NIT, Birla Institute of Technology and other leading institutions.

ICPC contest is being hosted by the Amrita University for the 10th consecutive time. The University will also host the first-ever ICPC World finals in 2015. The teams that took part in the semi-finals were selected after the preliminary contest held in October 2014.

Top teams qualifying in the semi-finals from all over the world will compete in the world finals. IBM is the worldwide ICPC sponsor and the Asia region event is sponsored by Infosys, Facebook, Directi.

### **December 22**

#### Millennium Post ND 22/12/2014 P-5

## IIT Kharagpur outshines other IITs

## Bags maximum number of jobs as first phase of placements draw to close

M POST BUREAU

KOLKATA: As the first phase of placements drew to a close, IIT Kharagpur students have got the maximum number of jobs as compared to other IITs, institute officials said on Sunday.

The first phase of placements, which ended on Saturday, witnessed a growth of around 10 per cent with 1,100-plus job offers and 1050-plus students placed, they said.

This was achieved despite academic institutions and PSUs reducing their hiring numbers from the IIT campuses compared to the previous year.

IIT Kharagpur witnessed the participation of over 200 companies hiring for more than 275 profiles in the first phase of placements. In addition, around 50 companies have already registered for the second phase beginning January.

Apart from big players like Shell,



ITC, Schlumberger, Goldman Sachs, Hindustan Unilever, Credit Suisse, Facebook, Google, Microsoft, Oracle, a large number of first time recruiters, including The Parthenon Group, Baker Hughes, Visa and TSMC, also visited the campus, each one of them hiring close to 10 or more students.

"We are extremely thankful to the alumni community of IIT Kharagpur which played a pivotal role in the recruitment drive bringing in leading organisations and upcoming startups to the campus. This is a collective effort of the career development centre which has put in a lot of hard work in achieving this tremendous result," said Punj Rajan, vice-president of Technology Students' Gymkhana at IIT Kharagpur. Companies like Robert Bosch, ZS Associates, Capgemini, EXL, Flipkart and Cognizant were among the top recruiters making multiple offers.

Start-ups like Housing, Commonfloor, Meru Cabs, Snapdeal, Stayzilla and OYO Rooms also hired aggressively for various roles spanning across operations, marketing, analytics and software development.

Prof Sudhirkumar Barai, chairman, Career Development Centre, said, "While there is a lot of buzz in the community about the high pay packages offered to some students, CDC at IIT Kharagpur is taking a conscious step towards encouraging students to take career-oriented choices which will make them leaders in the industry".

## IIT KHARAGPUR BAGS MOST JOBS

## PLACEMENTS CDS takes the initiave to encourage and make career-oriented choices

**Press Trust of India** 

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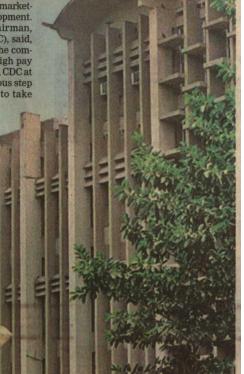
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career-oriented choices which will make them leaders in the industry".

This unique initiative has resulted in a tremendous rise in the number of students opting for a job in a profile of their choice irrespective of pay package, he said.

■ The first phase of placements witnessed a growth of 10% jobs FILE PHOTO



## Brain Drain: Few Indians who got Phd in US returned

Vanita Srivastava

ome calling for Indian researchers who went to the United States is still a far cry. Only 14 per cent of the Indians who got their doctorates in the US in engineering and science in the last six years decided to return to their native land, a just released statistical survey of the US has shown.

The survey—Doctorate Recipients from US Universities: 2013, done by the US National Science Foundation reveals that of the 15,401 Indians who were awarded a doctorate in science and engineering between 2007 and 2013 nearly 86 per cent decided to stay back. Likewise, 85 per cent of Chinese who were awarded doctorates in the same period pre-

ferred to stay back.

India ranks third in both the 2012 and the 2013 tables with respect to the proportion of doctorate recipients with temporary visas reporting an intent to stay in the U.S. after doctorate receipt. Iran and Nepal reported a higher percentage of staying back than India does.

The survey looked at students who graduated with PhDs between 2007 and 2013, indicating the brain drain in research that was thought to have reduced with India's recence economicgrowth. While the number of doctorates awarded to Indians has increased from 809 in 2003 to 2,205 in 2013, the percentage of Indians deciding to stay back in the US has however declined from nearly 90%

THE SURVEY LOOKED AT STUDENTS WHO GRADUATED WITH PHD'S BETWEEN 2007 AND 2013 INDICATING LOSS OF ACADEMICIANS IN RESEARCH

in 2007 to 84% in 2013 which could signal a positive trend.

A total of 2,205 Indians got a doctorate in 2013, the second highest among the foreign nationals, next to only Chinese with a 4,789 doctorates. South Korea ranked third with 1,383 doctorates.

Around 5,000 Indians join U.S. universities every year for doctoral studies in these fields.

Over the last seven years, initiatives such as the Ramanujan and Ramalingaswamy fellowships and the £160-million India Alliance between the UK's Wellcome Trust and India's department of biotechnology have prompted over 500 scientists doing research overseas to shift to their homeland.

Former director general of CSIR R Mashelkar said: "The young Indians are not just looking at the physical income. They are also looking at psychic income which needs an intellectually stimulating environment There is no doubt that the number of Indian students deciding to come back has gone up proportionately over the years. But we must continue to improve the environment to lure back more Indians."

## Business Standard ND 22/12/2014 P-5

# IIT-Kgp claims its students got most jobs this season

### **PRESS TRUST OF INDIA**

Kolkata, 21 December

As the first phase of placements drew to a close, students of IIT-Kharagpur have got the largest number of jobs as compared to other Indian Institutes of Technology (IITs), officials said on Sunday.

The first phase of placements, which ended on Saturday, witnessed a growth of 10 per cent with 1,100-plus job offers and 1,050-plus students being placed, they said.

This was achieved despite academic institutions and public sector undertakings (PSUs) reducing their hiring numbers from the IIT campuses in comparison to the previous year. IIT-Kharagpur

about 200 companies hiring for 275 profiles in the first phase of placements.

In addition, around 50 companies have already registered for the second phase which begins in January. Apart from big players like Shell, ITC, Schlumberger, Goldman Sachs, Hindustan Unilever. Credit Suisse. Facebook, Google, Microsoft and Oracle, a large number of first-time recruiters, including The Parthenon Group, Baker Hughes, Visa and TSMC, also visited the campus, each hiring close to 10.

Companies like Robert Bosch, ZS Associates, Capgemini, EXL, Flipkart and Cognizant were among the top recruiters, making multiple offers.

# IITians give up fat pay for social work

## Fellowships, Social Start-Ups Attract GenNext

Yogita.Rao@timesgroup.com

Mumbai: Even as several students from the current batch of IIT Bombay are looking forward to becoming multi-millionaires for the last three weeks, some passouts have dared to swim against the tide. It's no longer a mad pursuit to get sevenfigure salaries for these IIT students; it's a quest for their dreams that matters to them. While some want to teach. some have taken up social entrepreneurship and a few have taken up social work.

IIT-Bombay's 2010 passout, Pratyush Rathore, was earning an annual package of Rs 44 lakh (salary plus incentives) in a New Yorkheadquartered financial firm in Gurgaon when he quit his job to pursue his dream of teaching, against his parents' wishes.

After training students for IIT entrance exams for three years, Rathore has now purchased land to set up a school in a small village close to his hometown — Sirlay, in Madhya Pradesh. He has applied for the diversion process and is awaiting a nod from the local authorities for his plan to take off.

Rathore said, "I was into algorithmic trading. But my hobby was to teach and after three years of experience, I am confident about pursuing my dream." He had to get his parents to visit Gurgaon to show them the lifestyle he led. "It was only after the visit that they were convinced," said Rathore.

When Rathore quit his job to set up a school in 2011,



Pratyush Rathore (L) is setting up a school in a small MP village; Suhani Mohan wants to make low-cost sanitary napkins



his plans tanked after his partners backed out. "I continued training students for IIT preparations, and simultaneously, was looking for a job. My parents were relieved after I got a work-fromhome profile from a firm based in Mumbai," he said.

But now, his idea is taking shape. "Since it is my hometown, it is not difficult to get contacts and resources here. I plan to set up a school similar to the one in the movie '3 Idiots', where we will not follow the conventional schooling system," said Rathore.

## CAUSE OVER CASH

A passout from the 2014 batch, Siddharth Shah, opted for a Gandhi fellowship, a two-year residential programme which requires him to work with schools in small towns to train principals and teachers in leadership qualities and better teaching practices, and help them in transforming education.

Shah said, "I wanted to explore opportunities that could help me bring about a social change. I am content with less. I can always go back to research once the programme is over."

Suhani Mohan, also an alumni from IIT-B, quit a cushy job with a multinational bank with a pay packet of over Rs 20 lakh. She is now setting up a firm, which will make machines that can produce low-cost sanitary napkins for rural India.

"We knew that our skills can be used to make this product. It is a start-up and we are currently using our own resources for funding the venture," Suhani said. She has set up the venture with two of her friends.

Meanwhile, for some students, the fellowship programmes on offer during campus placements seemed like the way to go. Ankur Tulsian, a mechanical engineer from the 2011 batch, opted for the Young India Fellowship over an MNC offer.

The fellowship allowed him to get lessons in liberal arts and leadership from global experts for a year. "The programme gave me an opportunity to learn courses that I had not studied at IIT. It helped me to put whatever I had learnt in perspective. The diversity of class was also a refreshing change from that of the engineering cohort at IIT."

Tulsian said that some convincing went into get his parents onboard the idea. Since he was offered a scholarship, they agreed to it eventually, he added.

## Undergraduate students at IISc more keen on research

Ramzauva Chhakchhuak, Dec 21, 2014, Bangaluru, DHNS;



http://www.deccanherald.com/content/448907/undergraduate-students-iisc-more-keen.html

A majority of students from the first undergraduate batch at the Indian Institute of Science (IISc) are choosing to pursue higher studies and careers in research instead of joining the industry.

Although the present batch that joined in 2011 will be passing out next year, the placement process is already in progress. The students' choice is no surprise as the Bachelor of Science (BSc) course at the institute was started primarily with an emphasis to encourage research. This, at a time when there are a deluge of young pass-outs eager to join the industry.

Himani, a final year UG student majoring in biology, is one among the many students keen on studying further. "I would like to pursue my PhD and have applied to institutes like the Tata Institute of Fundamental Research (TIFR) and IISc. However, my dream would be to study at Stanford University or the University of California, San Francisco. I came to IISc primarily with the aim to go into research and would not like to do anything else," she said.

At IISc, BSc students are given a choice to major in any one of the six subjects - biology, physics, chemistry, mathematics, material science and environmental science - from the fourth semester onwards along with two minor subjects.

They are required to study a general course comprising all the above six subjects till the third semester.

The placement process began in November. While some students are sure that they would like a job, there are others who have registered for placements but are in two minds whether to choose a job or go for higher studies, said Abhinav Jain, a final year UG student, who is also the chief placements coordinator for his batch.

"As many as 25 students from the batch registered themselves to be part of the placements. Seven are from material science, 10 from physics, four from biology, two from mathematics and one each from environmental science and chemistry. Of these, around 15 are very keen on landing a job, while the rest may pursue higher studies if the offers are not that great," he said.

While the placement process has started for the whole institute, efforts are on to conduct a session, especially for UG students, in January. "Being in an interdisciplinary course, students are well-equipped to work in the industry as well as pursue research. However, since this is the first graduating batch of the UG course, there is a need to communicate to companies that we are ready for the industry," he said.

Abhinav himself, who majors in material science, wants to work with a startup after he finishes the course. **15 per cent interested in jobs**Speaking to Deccan Herald, the IISc Dean for UG Studies Prof Chandan Dasgupta said: "Of the 83 students in the batch, around 10-15 per cent have shown interest in landing a job after they pass out. However, this might change in the coming days when the picture with regards to placements and preferences of students becomes clearer."

According to sources, many students pursuing maths and physics are keen on working in data analytics. Those from different specialisations also want to get into sectors

Indian Express ND 22/12/2014 P-2

## Under mentor watch, 'Super-30' engineers guide aspirants

SANTOSH SINGH . PATNA, DECEMBER 21

SONI Kumari was listening intently to successful "Super 30" engineers for guidance to prepare for upcoming entrance examinations, when physicist and former Bihar DGP Abhayanand suddenly asked her if she could differentiate the sound of a bullet from that of a tyre burst. Her answer was a firm "yes".

She has seen her mother trying hands at a gun in Naxal-affected Dumaria in Gaya district. For Soni, meeting ITT and NIT graduates was nothing less than a dream as survival is a key issue in this violence-hit region. Her resolve to become an engineer gets stronger with some of them starting to take classes at Gaya's Magadh Super-30.

An enthused Pankaj associated with Magadh Super 30 said Gaya that used to have advertisements of "itches and ringworms" now has billboards



At 'Me and my nation' programme.

PRASHANT RAVI

of institutes preparing students for engineering entrance tests. Super 30 alone has sent 11 students to IITs and NITs in past five years from Gaya and Aurangabad, the infamous Red corridor of Bihar.

Over 250 youngsters, who had made it to IITs and NITs from Super 30 since 2005, gathered at a Patna management institute to attend a two-day programme, "Me and my nation", to tell their juniors at Super 30s how they are giving it back to society, whether through starting a Facebook

page for aspiring engineers or through taking classes in coaching institutes or colleges.

Shadab Naseem, who has been studying at IIT-Roorkee, said: "I came from Rahmani 30 that gave a platform for talented but poor minority students a platform. I wish there is similar arrangements for Muslimgirls". Shadab has been guiding students from Patna during vacations or through phone and social media.

Amit Kumar from Dobhi, Gaya, who did course from Indian Institute of Carpet Technology, Bhadoi, got a job in Egypt. "My father is a farmer. Once I made it, there is sense of belief in my fellow villagers."

Mohit Agarwal from Delhi said for his Super 30 and DTU experience he learnt that he has towork on "rural and urban divide" as students from villages lacked confidence and presentation despite knowledge. "I recall story of my friend Gautam Jha wanted a government job even after making it to engineering only because he has poor communication skills... Seniors and peers worked on him and now he speaks English fluently. That is what we want through 'Me and my nation' concept."

Harimohan Singh of Aligarh, who is studying at Indian School of Mines, said: "I teach class XI and XII students at schools".

Their mentor Abhayanand summed by saying: "It is up to these students to provide the way forward to Super 30 idea."

# DU researchers develop safe, portable blood substitute

PRESS TRUST OF INDIA

New Delhi

UNAVAILABILITY of blood in emergency situations such as accidents or battle-field trauma will no longer be a problem as a Delhi University department has claimed to have developed a safe and portable blood substitute which can be used irrespective of blood groups.

A team of researchers at Delhi University's department of Biochemistry, led by professor Suman Kundu, has applied for a patent for laboratory-made haemoglobin which, according to them, enjoys several advantages as a blood substitute.

"The lab developed haemoglobin is a safe and portable blood substitute. It has multiple advantages like cheaper cost of production, long shelf life, blood group neutral, no associated risk of transmission of diseases and easy to store," Kundu said.

"Traditional blood transfusion practice is to use blood donated by benevolent human individuals (donor). However, the worldwide supply of donated blood for transfusion therapy is al-

### New elixir

- Researchers have been trying for years to develop a portable blood substitute
- It has multiple advantages like cheaper cost of production and long shelf life

ways woefully short than the demand due to either a general aversion to blood donation or inability to donate blood due to medical reasons." he said. Scientists have thus been forced to look for alternatives to donated blood, which are called "artificial blood substitutes", "artificial haemoglobins" or "haemoglobin based oxygen carriers".

According to him, researchers have been trying for years to develop a portable blood substitute that functions as an oxygen carrier, is stable enough to be stored for prolonged periods in different conditions and can be used to treat individuals of any blood type but haven't been successful so far due to one shortcoming.

## UGC tells varsities to invite Asiad winners

NEW DELHI, DHNS: The University Grants Commission (UGC) has asked the varsities to invite the medal winners at the 17th Asian Games to their campuses and facilitate their interaction with the students.

This comes days after Prime Minister Narendra Modi, while addressing a function organised to felicitate these champions here in October, suggested that universities should invite successful sportspersons for interaction with their students so that they get inspiration to take part in sports.

"I am going to suggest to our Human Resource Development Ministry that those sportspersons who could speak should be taken to universities. When a successful sportsperson shares his story with students, it comes as a great help to them," Modi had said while addressing the medal winners of the 17th Asian Games, 2014.

Referring to the prime minister's wish, the higher education regulator wrote a letter to vice chancellors of all universities on December 18, directing them to invite 17th Asian Games champions of India to their campuses for interaction with students.

"I am writing this letter to request your esteemed institutions to promote sports/games among the students. In this endeavour, inviting medal winners to your campus to interact with the student community can play a major role in nur-



NARENDRA MODI: I am going to suggest to our Human Resource Development Ministry that those sportspersons who could speak should be taken to universities.

turing the culture of sports, the benefits from which are immeasurable," UGC secretary Jaspalo S Sandhu stated. He also asked the varsity heads to inform the commission about the acton taken by them in this regard "within one month".

"It is an admitted fact that sports play a major role in shaping the character of the student community. It not only helps them to keep their body fit and healthy but also trains them to focus their mind and teach them the art of handling pressure. It is an activity where only talent emerges as the winner and, as such, it inculcates discipline, perseverance and the spirit of competition among them," he added.

## Academics write to Pranab in support of IGNOU V-C

Staff Reporter

NEW DELHI: A number of professors and scholars have written to the President of India, Pranab Mukherjee, to step in the case of IGNOU Vice-Chancellor M. Aslam, who has been ordered by the Ministry of Human Resource Development to face an inquiry, and proceed on leave.

## Committee set up

The HRD Ministry had set up a committee last month under Central Gujarat University Vice-Chancellor C. Syed Bari to review the functioning of IGNOU and look into the "motivated" allegations against Prof. Aslam.

The appeal says that the signatories feel greatly disturbed when they hear that a person, who has sacrificed ev-

erything, and is working with utmost sincerity and dedication, is being subjected to a humiliation by not only instituting an inquiry but also being asked to proceed on leave.

## Intervention

They requested the President to intervene to ensure that Prof. Aslam is not harassed.

On being contacted, Prof. Aslam told *The Hindu* that since the matter was before a committee it would not be right for him to comment on the issue

The signatories include professors and scholars from Delhi University, Jawaharlal Nehru University, Jamia Millia Islamia, Patna University, Punjab University, and Indian Sociological Society.

## Google plans to open own campus in Hyderabad

http://timesofindia.indiatimes.com/tech/tech-news/Google-plans-to-open-own-campus-in-Hyderabad/articleshow/45592371.cms

PTI | Dec 21, 2014, 12.44 PM IST

HYDERABAD: Internet giant Google plans to open its own "permanent and big" campus in Hyderabad and is set to sign an MoU with Telangana government shortly to take up the venture.

"We are likely to sign MoU with Google. They are likely to open their campus here in Hyderabad. It will be the third campus they will have after the US and the UK," Telangana IT, electronics and communications secretary Harpreet Singh told PTI here.

Google currently operates from rented premises here but wants to move to a "permanent campus", he said, adding the tech major would sign an MoU with the state government shortly.

He, however, declined to go into further details of the proposed venture, saying a press conference is scheduled to be held shortly on this but added that it would be a "big campus".

Singh also said Cisco, Airtel, Vodafone and a Taiwanese company, among others, have responded to the expression of interest floated by the government on proposed venture to make Hyderabad a Wi-Fi enabled city. "

Many of them are partnering and coming," Singh said, adding the Taiwanese firm, in fact, was behind making Taipei a Wi-Fi enabled city.

But he said the companies that have evinced interest have sought information such as detailed maps of the city, including roads, and some clarifications with regard to certain specific points. "So, we are preparing the replies; we will give it to them".

"It will take time (to make the city Wi-Fi enabled) because business model is the critical issue. Making Wi-Fi is not a big problem ... but how to monetise it ... is the key issue," he explained.

Singh, however, said the contract for this venture is expected to be awarded in the next three-four months after floating the request for proposals and the bidding process.

After that, the successful bidder is expected to take six months to roll out the infrastructure, he said, indicating that the city is likely to be Wi-Fi enabled only towards the end of next year.

On the proposed Rs 30 crore incubator facility for technology start-ups, he said its designs have been completed and the process of tendering is in progress.

The 70,000 square feet facility will have 800 seats, housing an expected 500 start-ups in different stages of growth, he said.

"We are planning to formally inaugurate this building on June two (on the first anniversary of Telangana State's formation)."

As for software exports from Hyderabad, he noted that it was Rs 57,000 crore or roughly ten billion dollars in the year 2013-14. "This year (2014-15), I think it's (going to be) 12% (more). We may do slightly better (better than 12% growth)," Singh added.

## Super professors, super training

This online portal brings to students a choice of popular institutes and teachers from across the country.

http://www.thehindu.com/features/education/super-professors-super-training/article6711093.ece

Piyush Agarwal was pursuing higher education at Standford University when he realised that there was a greater need for technological innovation and research in the education sphere in India. So, he dropped out of his course, packed his bags and returned home to apply technology to solve problems in education. Piyush then started Aurus Network in 2010 and their flagship product, www.superprofs.com came out in 2014.

SuperProfs gives students the liberty to attend online classes attended by their favourite professors in the comfort of their homes and at their own time, for competitive exams like IIT- JEE, GATE, CA, CS and CMA. "The most pressing issue at hand in Indian education system is the quality of teaching and training methodology. The pedagogy in tier II and tier III city schools and colleges is not uniform, and teachers lack a personal connect with the students. Forty or fifty students are clubbed together in a class and often taught by one instructor. For this reason, many opt for coaching classes. But it's the same issue there as well," says Piyush, CEO, SuperProfs.com. So far, 25,000 students have registered on their site.

Here, they not only get access to classroom sessions but can also get study materials that are delivered to their homes within three-four working days of subscribing to a class. "We also facilitate interaction sessions between students and teachers so that students can get their queries resolved. SuperProfs.com has already partnered with more than 50 popular professors and institutes for GATE, CA and CS preparation from Delhi, Mumbai, Bengaluru, Chennai, Ahmedabad and Kolkata," adds Piyush.

#### **Competitive base**

Competitive exams are a good target because of the level of demand and the competition. "For instance the level of competition in IPCC (chartered accountancy course) is huge and this year, only 9.49 per cent of the 66,625 candidates cleared it," he explains, adding, "The number of students appearing for IIT- JEE is increasing every year, but the intake is just about 10,000 for every five million students who appear for the exam."

Over the years, several institutes have mastered the art of coaching students for these exams and consistently produce toppers. SuperProfs takes these masters and connects them to students across the country. This way, the information is shared better, and everyone has access to good training. "Delhi is known to have the best coaching for IAS, CA and similar exams whereas Kota (Rajasthan) is popular for IIT-JEE coaching. But not everybody has access to this information. We bridge the gap," adds Piyush.

All one has to do is visit the site, choose the exam they need material for and select from a list of coaching material by different professors. They can then register to attend HD quality classes even without dedicated Internet connectivity.

"On SuperProfs.com, we have free content such as e-books, exam tips, study material etc and complete course packages — with printed textbooks and quizzes, for which we charge a nominal fee. Those attending the lectures can watch them as many times as they want to and also get the material delivered home," says Piyush.

#### **Super professors**

Some of the classes that students will be signing up for will be by The GATE Academy, Bengaluru offering GATE online coaching; Mumbai-based Siddharth Academy, offering CS online coaching and Sinhal classes for IIT- JEE; Delhi-based professor, Rajiv Singh, for Strategic Financial Management; Sudhir Sachdeva for law and so on. The classes work on very low internet speeds (100 Kbps), apart from being playable on most mobile devices. "Each professor at SuperProfs.com has taught more than 10,000 students so far and has produced rank holders. We adopt a video compression technique that can capture the recording and compress the feed obtained from the HD camera and microphone. So, the videos are available at low speeds, too. We are also planning to launch an easy-to-use mobile app in another three months, so that students can carry their study materials in their pockets," he says.

The website also allows for weekly live interactive sessions and answer forums where students can pose questions. They can also compare different professors based on their teaching styles, previous year results, verified ratings and reviews provided by other students. "We will add more course options for each subject and sign up with more institutes and individuals for each segment," says Piyush, about SuperProfs' future plans.

### Times Of India ND 22/12/2014 P-17

## Nasa now plans to set up human colony on Venus

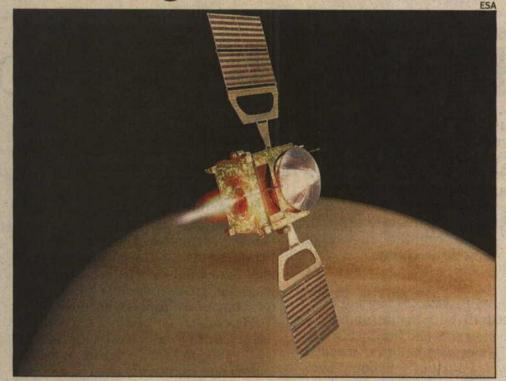
## Solar Airships To Explore Most 'Earth-Like' Planet

Washington: Nasa plans to send solar-powered airships to explore Venus's atmosphere and to eventually establish a permanent human colony in a floating cloud city above the Earth's nearest planetary neighbour.

Dale Arney and Chris Jones, from the Space Mission Analysis Branch of Nasa's Systems Analysis and Concepts Directorate at Langley Research Center, in Virginia, have proposed that it may make sense to go to Venus before we ever send humans to Mars.

Nasa's High Altitude Venus Operational Concept (Havoc) mission aims to explore the atmosphere of Venus instead of exploring the surface. Researchers believe the upper atmosphere of Venus is "probably the most Earth-like environment that's out there". At 50 kms above its surface, Venus offers an atmosphere of pressure and only slightly lower gravity than Earth.

Astronauts would also be protected from radiation in Venus's atmosphere, researchers said. The planet's proximity to the Sun provides it 40% more solar power than Earth, and 240% more than that seen



Venus offers an atmosphere of pressure and only slightly lower gravity than Earth

on Mars. Since the orbits of Venus and Earth align over time, a crewed mission to Venus would take a total of 440 days using existing or very near-term propulsion technology, 'IEEE' reported. But getting to Mars and back using the same propulsive technology would involve more than 500 days in space at a minimum.

Havoc involves a series of missions, including a robotic mission first and then a crewed one to Venus orbit with a stay of 30 days, and

then a mission that includes a 30-day atmospheric stay.

Later missions would have a crew of two spend a year in the atmosphere, and eventually there would be a permanent human presence there in a floating cloud city.

A helium-filled, solar-powered airship would explore the planet's atmosphere. The robotic version would be 31 metres long while the crewed version would be nearly 130 metres long. PTI

## Training India's informal workforce

Millions of Indians who are leaving overcrowded farms are being absorbed by the informal economy rather than the large firms that policy-makers are apparently banking on



lobalisation trade liberalisation in India have led to a series of changes in the Indian labour market. The direct consequences are the inflow of technology, encouraged by the economic reforms, and its impact on the growth of a skill-based workforce, opening up a whole new window of opportunity even for the small enterprises in the informal sector Skills are a method of improving human capital, which ensure income security to the workers, particularly for the poorly educated workers in developing countries such as India, and therefore a key to enriching this huge workforce which can directly and indirectly help boost the market.

The term "informal economy" refers to all economic activities by workers and economic units that are either in law or in practice not covered or insufficiently covered by formal arrangements. In developing countries, informal labour force is primarily comprised of self-employed people working from home or street-vending. They have neither official nor permanent places of business. Experts agree that in most developing countries the informal economy is a crucial economic force for the foreseeable future.

The National Commission for Enterprises in the Unorganised Sector (NCEUS), an advisory body of the government, was set up in 2004 to bring about improvement in productivity in this sector by generation of large-scale employment opportunities on a sustainable basis, particularly in rural areas. India currently has 59 million enterprises that provide work to 127 million people, of which 17 million new enterprises have been added since 2005. According to the economic census, millions of Indians who are leaving overcrowded farms are being absorbed by the informal economy rather than the large firms that policy-makers have been banking on. We can be hopeful that this, will help divert



ILLUSTRATION: ASIT BAGCHI

some attention of the policy-makers towards this sector. This shift is indicative of the confidence that such enterprises are gaining for the resources that are choosing to be with them in spite of an increase in rural wages. One reason is that higher prices for farm goods and higher rural wage rates have helped generate localised demand that is met by these small firms.

The informal segment of the workforce is defined by a number of common characteristics: On limited professional skills, low incomes, low productivity and low capital investment. Developing new marketable job skills through education and training can disrupt cyclical poverty by increasing productivity and job opportunities in the informal economy and workers' formal-sector employability. Thus, it is important to train this group to optimise their productivity and uplift the nation.

Increasing informal economy productivity requires a holistic approach by raising informal workers' education and skill levels. However, merely investing in workforce programmes doesn't necessarily result in greater productivity. It is not that the current population is not receiving any training or education, but where they may be going wrong is that they focus solely on technical skills without integrating noncognitive or soft skills. Across industries, skills to communicate effectively, organise efficiently, and Today, vocational training is seen as an option only for those who fail in academics. This mindset needs to change. Vocational training should be made part of primary and secondary education to ensure that those passing out of schools are employable

solve unanticipated problems are desired, and often required, in a valuable worker. Employers often find these skills lacking in the pool of potential workers.

How can we bridge this gap and train the informal sector to bring out the best in them? Broadly, we should focus on two goals:

- Reforming school-based programmes by redesigning curricula to maximise training effectiveness, strengthening collaboration with prospective employers, and improving outreach to the informal economy.
- Improving non-school programmes with efforts like reforming the traditional apprenticeship system, implementing targeted training programmes for semi-urban & rural populations, and systematically evaluating the impact

of new initiatives in these areas. Embedding newskills in a widely varied workforce is crucial for determining how productivity growth can translate into employment-growth, and for whom. Developing human capital in the informal economy requires highly effective, market-driven education and training programmes. Employers should articulate their own needs to ensure their labour demand is correctly aligned with the newly-trained workforce supply. Complementary education and training programmes include school-based education, on-the-job learning, and learning through non-governmental and for-profit private training centres

The "Education for All" initiative has made significant progress in providing universal basic education and developing cognitive skills. However, vocational trainings are seen as an option only for those who fail in academic tracks. In India, less than 3% of secondary students chose the vocational stream in 2004-05, reflecting on the assumption that they are less important. This mindset needs to change and our leaders and educators need to understand that vocational training should be made part of primary and secondary education to ensure that those passing out are employable. The main issue is not unemployment any more but employability, one that renders an educated resource unproductive due to lack of effective,

practical exposure to the industry.

Raising skill levels of informal economy workers can contribute to economic growth and wealth creation. But merely investing in workforce programmes doesn't necessarily result in greater productivity. The effect skills development can have on the productivity of informal workers cannot be separated from other changes in their economic environments.

The National Skill Development Agency has been partnering with several organisations to coordinate various piecemeal training efforts of different ministries, state governments and industry. Skilling and placement targets have been set at aggregate and sectoral levels and a robust national tracking system is in place. The budget for skilling has been increased to more than ₹10,000 crore a year. PPPs such as those initiated through NSDC need to be stepped up to create awareness and training modules which can help fill this gap with the help of organisations such as Viztar International. The organisation is a transformation training and business consultingfirm, and through its NGO, Success Foundation, has partnered with NSDC to provide vocational training in semi-urban and rural areas. These are unique in the way that they equally emphasise on providing soft-skills so that the candidates have a holistic development that helps them deliver their best in whatever they do.

Though such initiatives are a huge step towards solving the skills-gap in India, we have miles to go considering that in urban India, about half of all non-agricultural workers did not attend secondary school. What's more, for casual workers, typical of the informal economy, this percentage sky-rockets to 80%, suggesting that India needs to reinforce basic logical and problem-solving skills among its workers—the first step towards delivering advanced training programmes that can help workers improve their technical and non-cognitive skills. Prime Minister Narendra Modi's dream of building a skilled India will be incomplete without training the informal sector and hopefully their policies will be directed towards doing the same.

The author is chief mentor of Viztar International Pvt Ltd

P-12

## Smart jobs for smart cities

Data analytics, programming, high-end consulting, system and network integration are going to be the in-demand jobs



n ideal scenario: A coastal city with shiny new buildings. Trees are planted on every side of the street and the air is automatically purified each hour. You can pay with your phone and charge your car at every parking place. A dream? This isn't a modern science fiction novel, but is happening as we speak. These technologies are being developed in China, often in cooperation with Western companies.

The above is what is now termed as 'smart city'. Smart cities are a hot topic and a commonly used buzzword today. This concept primarily involves combination of human capital and technology to create a sustainable environment. Such cities work towards improving sustainable economic development, infrastructure and also create a higher quality of life for the citizens as they contribute to this process.

China probably identified this opportunity one of the earliest and acted its way through in creating several such smart cities. McKinsey Global Institute wrote in 2009 that China's urban population will grow from 527 million in 2005 to 926 million in 2025. Cities with a population exceeding 1 million are likely to increase from 153 to 226 in that same period. In 2011, the

growth. We must define urbanisation carefully; it is not about relocating more people into the larger cities nor is it about well-planned economic wastelands like Chandigarh. We have seen emergence of small pockets of economic success in areas like Gurgaon near Delhi, Gachibowli near Hyderabad, Magarpatta near Pune, Whitefield in Bangalore and Mohali near Chandigarh, but these are from far being identified as smart cities.

The next question is, how do we create these smart cities? The recent announcement from the government to create a 'Digital India' is a positive move. A budget of \$1.2 billion has been allocated for smart cities alone. This should encourage some of the big-wig technology firms to submit proposals to local governments, and collaborate with real estate developers to build sustainable green cities.

Industrial corridors between India's big metropoli-

While it is difficult to give an estimate of jobs that will be generated and the reduction in labour migration, one can confidently say that even if work begins on 5-10 smart cities over the next two years, we would have created a favourable ecosystem for many thousands of jobs

Chinese National Bureau of Statistics announced that China's urbanisation rate had surpassed 50%. This was the first time in China that more citizens were living in cities than in rural areas.

An important drive for developing smart cities is the rising middle class. Another report from McKinsey in 2013 considers consumers in China with household incomes between 106,000 to 229,000 yuan to be the upper middle class. According to McKinsey, in 2012, this segment accounted for just 14% of urban households. Their estimates for 2022 show a turnaround. with 56% becoming upper middle class and 14% mass middle class, which are household incomes ranging from 60,000 to 106,000 yuan.

Does India fit into the above scenario? Do we see a rising opportunity in creating smart cities which, in turn, creates a sustainable environment for its citizens?

Urbanisation in India has significant implications for the future development of the country. By 2030, India's urban population will touch 590 million or nearly twice that of the US, while Indian cities will generate close to 70% of the GDP. This will exert tremendous pressure on urban infrastructure and services. It is, therefore, imperative that we find innovative solutions for the urban challenges of growth and sustainability.

This dramatic growth also provides impetus for the creation of smart cities which leverage information and communications technology (ICT) to greatly improve the productivity, lifestyle and the prosperity of our people. Additionally, green growth strategies can build environmentally sustainable cities.

India has 50 cities with more than a million people; China now has more than 350. Job creation needs new cities because it will replace the current short-term thinking of taking people to jobs with a more sustainable solution of taking jobs to people. There will be strong regional disparities in the next 20 years; five states in the South and West of India (Gujarat, Maharashtra, Tamil Nadu, Karnataka and Andhra Pradesh) will see 50% of the country's GDP growth but only 5% of population

tans like the Delhi-Mumbai Industrial Corridor, the Chennai-Bangalore Industrial Corridor and the Bangalore-Mumbai Economic Corridor seem a positive move. It is hoped that many industrial and commercial centres will be recreated as 'smart cities' along these belts. The Delhi-Mumbai Industrial Corridor (DMIC), which is spread across six states, seeks to create seven new smart cities as the nodes of the corridor in its first phase.

The very idea of smart cities is based on the assumption that there are technocratic solutions for the routine problems that citizen face. Problems of inefficiency that are seen to dominate the old bureaucratic-political order are hence given a 'smart' solution by employing 'Big Data'.

Another positive impact of the 'smart city' and 'Digital India' projects is job creation, which will be, needless to say, 'smart'. While it is difficult to give an estimate of jobs that will be generated and the reduction in labour migration. one can confidently say that even if work begins on 5-10 smart cities over the next two years, we would have created a favourable ecosystem for many thousands of jobs. This will be more inclined towards white-collar jobs as IT professionals will be in greater demand; IT infrastructure being the backbone of any smart city. Data analytics, programming, high-end consulting, system and network integration will be the order of the day and professionals and students in this area can expect better opportunities. It is a great time and opportunity for the 'Internet of Things', as

With a burgeoning urban population, there is an immediate need for creation of infrastructure facilities to satisfy the increasing urbane aspirations of our populace and smart cities seem to the solution. While the focus seems to have shifted towards smart cities and urbanisation, care must be taken so as to ensure the large percentage of population that relies on unskilled jobs and agriculture are not left behind.

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## Santa ki jai

Whatever the HRD ministry may believe Christmas is a thoroughly Indian festival

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Christmas Day as Good Governance Day? Santa's day out with kids to be negated in order that kids may recite poems about governance, as if to sneakily suggest that Christmas is somehow a 'foreign' festival, Christianity a religion from foreign lands, celebrated by 'non-Indians' read westernised Macaulayputras? So marking Christmas is a colonial hangover, its

repudiation a sign of 'Indian' distinctiveness from the rest of the world? How

wrong can you get, HRD ministry!

Markets even across the so-called Vedic heartland are alive with trees, stars, angels and carols, in Kerala mass is said in Malayalam, in Goa in Konkani, and a typical Christmas meal ranges from cake to spicy local fare, ladies attend church in their best saris, and the ubiquitous red costume and flowing beard of Santa is beloved of all kids. Santa speaks the language of love and the language of kids. The star of Christmas doesn't just rise in Bethlehem, it also rises in the town of Kunnamkulam in Thrissur district where Christmas stars are made and sent across India.

There are even Bharatanatyam adaptations of the Christmas story, with Carnatic music and Christmas carols together providing the musical score for a classical dance rendition of the birth of Christ. Localities in Kolkata even perform Sri Jesus puja. Midnight Mass in cities like Kolkata and Mumbai is a thoroughly universal occasion,

with scores of non-Christians streaming in to sing carols.

For the millions of Indians educated in missionary schools, Christianity was hardly the religion of fear that the Sangh Parivar may believe it to be. We convent-educated types were never in danger of conversion, we decorated Christmas trees, sang carols and ate Christmas cake because of the plural non-denominational festival of fun that Christmas was and is, its universality resting in the fact that this is a day dedicated to joie de vivre, a day marked by a plural Indian Christianity, where Christmas tree and carols coexisted easily with kanjeevaram saris and traditional Hindu homes. Christmas was always about a homespun desi Christianity in which as historian Ramachandra Guha puts it, teachers named Mohammed Amin and Prem Sagar Dwivedi presided over a college named St Stephen's.

Today, like all festivals, the spiritual may have become the commercial but all the colours of India are represented at Christmas. So, no, HRD ministry, there's no loss in civilisational identity for those who heartily belt out jingle bells and Rudolph the red posed points are Posed by the red posed points are Posed by the red posed points are presented at Christmas.

bells and Rudolph the red-nosed reindeer on December 25.