

## Newspaper Clips August 15-18, 2015

August 15

Deccan Herald ND 15/08/2015 P-10

### Varsities to pull up socks for right data

The Ministry of Human Resource Development's amending of University Grants Commission (UGC) rules making it mandatory for universities to provide it with detailed information on their accounts, functioning, etc is a welcome step that could go a long way in making the latter more accountable. As per the UGC Furnishing of Information by Universities, 2015, universities will have to send the UGC information on a wide array of subjects, including their admission criteria, performance of students, details of residential accommodation for staff and students, ratio of teachers to students, research experience of teachers and so on. Failure to submit the data on time or filing of inaccurate data and falsified information will prove costly; universities that fail to provide the required information will face a 25 per cent cut in grant-in-aid allocation or other punitive action. Some have criticised the HRD ministry's move as needless central interference in the running of universities. A key issue of worry is that the new regulation will pave the way for greater centralisation of higher education. This is an understandable concern. Education in India is a concurrent subject, with policy making being the responsibility of the central government while its implementation rests in the hands of the states. Will the new regulation amount to the Centre meddling in the functioning of the universities?



"The regulation may lead to centralisation of higher edu."

Educational and other policies are best made when they draw on accurate data and information that reflects the situation on the ground. In the past, universities had failed to provide accurate data to the UGC or the MHRD. Poor performance of students in higher education, abysmal quality of doctoral research or failure of teachers to publish or update their knowledge and skills are often glossed over and underplayed by institutions of higher learning. In the circumstances, the HRD ministry has made policies that have failed to arrest effectively the worrying decline in the quality of higher education in the country. By forcing universities to provide information, the Central government is hoping not only to get them to pull up their socks and improve performance but also provide the Centre with data that is more useful for policy making.

The government is rightly consulting a broad cross-section of stake-holders, including educationists, teachers and students in the drafting of the New Education Policy. The new UGC regulations will prove useful to this effort. However, the gains made from such efforts will be neutralised if the government persists with its plans to politicise education. Curriculums that are injected with ideologies and indoctrination cease to provide education.

# 'Earth 2.0' found in NASA Kepler telescope haul

**NEW KID ON THE BLOCK** Joining other exoplanets that are similar in many ways to Earth, Kepler-452b could very well be the next habitable planet for us, reports Paul Rincon

A haul of planets from Nasa's Kepler telescope includes a world sharing many characteristics with Earth. Kepler-452b orbits at a very similar distance from its star, though its radius is 60 per cent larger. Mission scientists said they believed it was the most Earth-like planet yet. Such worlds are of interest to astronomers because they might be small and cool enough to host liquid water on their surface and might therefore be hospitable to life.

Nasa's science chief John Grunsfeld called the new world 'Earth 2.0' and the 'closest so far' to our home. It is around 1,400 light years away from Earth. John Jenkins, Kepler data analysis lead at Nasa's Ames Research Center in California, added, "It's a real privilege to deliver this news to you today. There's a new kid on the block that's just moved in next door."

The new world joins other exoplanets such as Kepler-186f that are similar in many ways to Earth. Determining which is most Earth-like depends on the properties one considers. Kepler-186f, announced in 2014, is smaller than the new planet, but orbits a red dwarf star that is significantly cooler than our own. Kepler-452b, however, orbits a parent star which belongs to the same class as the Sun: it is just four per cent more massive and 10 per cent brighter. Kepler-452b takes 385 days to complete a full circuit of this star, so its orbital period is per cent longer than Earth's.

The mass of Kepler-452b cannot be measured yet, so astronomers have to rely on models to estimate a range of possible masses, with the most likely being five times that of Earth. If it is rocky, the world would likely still have active volcanism and its gravity could be roughly twice that on our own planet. The new world is included in a haul of 500 new possible planets sighted by the Kepler space telescope around distant stars.

Twelve of the new candidates are less than twice Earth's diameter, orbiting in the so-called habitable zone around their star. This zone refers to a range of distances at which the energy radiated by the star would permit water to exist as a liquid on the planet's surface if certain other conditions are also met. Of these 500 candidates, Kepler-452b is the first to be confirmed as a planet.

**On similar terms**

Suzanne Aigrain, from the University of Oxford, who was not involved with the study, told BBC News, "I do believe the properties described for Kepler-452b are the most Earth-like I've come across for a confirmed planet to date. What seems even more significant to me is the number of planets in the habitable zone of their host stars with radii below two Earth radii; 12 is quite a few compared to the pre-

existing Kepler planet catalogue. It bodes well for their attempts to provide a more robust measure of the incidence of Earth-like planets, which is the top-level goal of the Kepler mission."

While similar in size and brightness to the Sun, Kepler-452b's host star is 1.5 billion years older than ours. Scientists working on the mission therefore believe it could point to a possible future for the Earth. "If Kepler-452b is indeed a rocky planet, its location vis-a-vis its star could mean that it is just entering a runaway greenhouse phase of its climate history," explained Doug Caldwell, a Seti Institute scientist working on the Kepler mission. "The increasing energy from its aging sun might be heating the surface and evaporating any oceans. The water vapour would be lost from the planet forever. Kepler-452b could be experiencing now what the Earth will undergo more than a billion years from now, as the Sun ages and grows brighter."

**Relative calculations**

Don Pollacco, from Warwick University, UK, who was not involved with the latest analysis, said: "Kepler data allows you to estimate the relative size of a planet to its host star, so if you know the size of the host, hey presto, you know the size of the planet."

"However, to go further — i.e. is it rocky? — involves measuring the mass of the planets and this is much more difficult to do as the stars are too far away for these measurements to make. So, in reality they have no idea what this planet is made of: It could be rock but it could be a small gassy ball or something more exotic maybe," said Don.

Chris Watson, from Queen's University Belfast, UK, commented, "Other Kepler habitable zone planets may well be more Earth-like in this respect. For example, Kepler-186f is approximately 1.17 Earth radii, and Kepler-438b is approximately 1.12 Earth radii. In fact, at 1.6 Earth radii, this would place Kepler-452b in a category of planet called a 'Super-Earth' — our Solar System does not actually have any planet of this type within it! Super-Earths are hugely interesting for this reason, but one might then say, well, is it really 'Earth-like' given all this?"

He added, "When we look at the type of star Kepler-452b orbits, then it seems to be a star not too dissimilar to our Sun. The other Kepler habitable zone planets that have been discovered so far tend to be orbiting M-dwarfs — stars far cooler than our Sun, and therefore the planets need to orbit much closer to receive the same levels of heating. So it may be a potentially rocky super-Earth in an Earth-like orbit. It's this combination of the host star and orbit that set it apart in my opinion."

The New York Times



**LIKELY CHOICE** Kepler-452b is around 1,400 light years away from Earth.

# Sundar at Google helm inspirational

Sundar Pichai, with his appointment as the CEO of Google, is the latest to join the growing band of Indian leaders of iconic technology companies. It is a remarkable achievement for an Indian from an ordinary background to make such a meteoric rise to the top of the world's leading technology company. The IIT graduate had joined the company only 12 years ago. He was responsible for or had a major role in many of the new products and features Google introduced during this period and this has been well recognised. Last year, he became the head of the technology and products division, which effectively made him the second-in-command in the company after its co-founder Larry Page. Sundar's achievement is an acknowledgement of the fact that ability, hard work and dedication override other considerations and would be well rewarded in the best organisations. That is why they become the best.

Many top companies like Microsoft, Nokia, Pepsico, Adobe Systems and Master Card are headed by Indians. There are more Indians than those belonging to other nationalities, after Americans, in the S&P 500 companies. Most of them are from modest backgrounds and have proved themselves with technology skills or managerial abilities. This should be inspirational for the lakhs of young Indians who aspire to make it big in technology and business on the world stage. But the question should also be asked why they do not get their due in the environment at home.

Pichai's elevation also came as part of a major organisational restructuring of Google, which has made the company leaner, more agile and more transparent. Google had grown too big too soon, with too many activities, projects and proposals being administered and undertaken centrally by the same management. It has now been reorganised more loosely, with a holding company, Alphabet, led by Larry Page and another co-founder Sergey Brin, placed at the

helm of the group. Google under Sundar will be a separate company and the company's "moonshoot" projects will be handled by separate entities. Autonomous units handling different areas will increase efficiency and give a better sense of responsibility to the constituents. Google is a company with many futuristic dreams like driverless cars and a life extension project. It values innovation and disruptive technologies which change habits, attitudes and lives. The company has done well to separate the units which pursue high-risk research and activities from the units which do normal business. The company's investors would also be happy with such an arrangement, as shown by the welcome given by the stock market to the restructuring announcement.



## **Anand Mahindra receives honorary Doctorate from IIT Bombay**

**Kailash Satyarthi, Nobel Peace Prize Laureate, was the Chief Guest for the occasion and he delivered the Convocation Address to the gathering.**



<http://indiatoday.intoday.in/story/anand-mahindra-receives-honorary-doctorate-from-iit-bombay/1/458650.html>

Anand Mahindra, Chairman of the \$16.9 billion Mahindra Group, received an honorary doctorate at the 53rd Convocation of IIT Bombay. Mr Mahindra was conferred with the Degree of Doctor of Science (Honoris Causa) for his extraordinary commitment in furthering the cause and growth of the automobile industry, and for his significant contribution to the social development of India.

Mr Anand Mahindra said, "Everyone says that 'Jugaad' is India's biggest contribution to the world. What I want from all of you is to work towards moving from 'Jugaad' to 'Jhakaas'. This is about thinking differently and not just thinking cheap. 'Jhakaas' is about disruption and sustained disruption requires an educational culture where questioning is encouraged and failure is embraced. I would argue that one of the 'I's in IIT stands for imagination."

Professor Devang V. Khakhar, Director, IIT Bombay said, "The Doctor of Science (Honoris Causa) is the highest honour bestowed by IIT Bombay. Over the past two decades, Mr Mahindra has contributed immeasurably to the development of India's indigenous automotive industry and the success of vehicles like the Scorpio and the XUV500 is testimony to this contribution."

Kailash Satyarthi, Nobel Peace Prize Laureate, was the Chief Guest for the occasion and he delivered the Convocation Address to the gathering.

Mahindra said, "This is an educational culture where your faculty has created an environment that encourages you to think and provides opportunities to take the creative leaps of faith. So, I urge you all to go out there and focus on this 'I'. This will lead us to not only 'Make in India' but also 'Imagine in India.'"

Established in 1958, IIT-B is recognized worldwide as a leader in the field of engineering education and research. Reputed for the outstanding calibre of students graduating from its undergraduate and postgraduate programmes, the institution attracts the best students from the country for its bachelor's, master's and doctoral programmes. Research and academic programmes at IIT Bombay are driven by an outstanding faculty, many of whom are reputed for their research contributions internationally.

## HRD Ministry asks Pondicherry University VC to go on leave

<http://economictimes.indiatimes.com/news/politics-and-nation/hrd-ministry-asks-pondicherry-university-vc-to-go-on-leave/articleshow/48473746.cms>

PUDUCHERRY: Union HRD Ministry has asked the Vice-Chancellor of Pondicherry University Chandra Krishnamoorthy, against whom students had launched a stir about two weeks ago seeking her removal, to go on leave.

Chief Secretary to Puducherry government, Manoj Parida, told PTI today that the Ministry has directed the Vice-Chancellor to go on leave pending inquiry into the allegations made against her.

The students have been on strike since July 27 to press their charter of demands, including removal of the Vice-Chancellor for alleged 'administrative chaos' and 'violation of human rights'.

Against this backdrop, a two-member official team, comprising the Joint Secretary to the UGC K P Singh and Director of Higher Education in the Ministry Amit Shukla, deputed by the HRD Ministry, had held parleys with students, officials, staff and other stakeholders of the University on August 6 and 7.

The team also held talks with the Vice-Chancellor and the Registrar in charge S Panneerselvam during their two-day camp here.

An inquiry has since been on into the allegations and pending the probe, Chandra Krishnamoorthy has been asked to proceed on leave.

Chandra Krishnamoorthy is the first woman Vice-Chancellor of Pondicherry University. This is the first time in the annals of the 31-year-old University that a Vice-Chancellor has been asked to go on leave.

## India ranks low on innovation index; Why are IITians pursuing other fields?

<http://www.pagalguy.com/articles/india-ranks-low-on-innovation-index-why-are-iitians-pursuing-35394238>

While India celebrates Sundar Pichai taking over as CEO of Google, and as his alma mater IIT Kharagpur waves the flag of their rewarded efforts, there are many current engineering students not inclined towards their fields of study at all. An Economic Survey Report released in early 2015 by a National Committee has ranked India 48th in the world in terms of employability and research in core engineering fields; just above Russia among BRICS nations. It says that most Indian engineers lack the capacity for innovation and are hence deemed unemployable at the global level. Interaction with several IIT students and a study of some recent statistics has given us fairly strong answers stating thus.

IIT - Kharagpur, Roorkee and Bombay house several extracurricular clubs that encourage students to indulge in their hobbies. These clubs, STAB (IIT Bombay) and Hobbies Club (IIT Roorkee) were started by professors with the motive of providing recreation to stressed students. Now, rather than recreation, students have begun to pursue hobbies as a career and are using these clubs to hone their skills. Shivani Das, a final year student from IIT Bombay says, "BTech is just another degree for me, it's not what I want to pursue. I am currently doing an applied diploma in Graphic Designing along with my degree and have started preparations for my entrance exam to NID." Another final year student from IIT Kharagpur, Adil Jhunjhunwala says, "I'm not interested in working for others. My aim is to excel in BTech, then do a good management/finance course and join my father's business."

While the colleges only want to provide stress busters to the students, the actual problem is that many of these students don't like what they are studying. One such student from IIT-B, Lokesh Ramban failed his first year of engineering due to lack of time to focus on studies and then went on to pursue his passion for tennis. Several students on Facebook have commented about their fading desires to be an engineer and consider their options to fly abroad. In fact, professors with IIT backgrounds earn more money than those working in corporates, which is now a motivation for students to take up teaching as a full-time career.

If other careers are so tempting, then why waste an engineering seat at all? Pranay Dadha, student from IIT Bombay says, "After coming here I discovered myself 360 degrees. I realized I possessed skills other than studying which would be more interesting to make as a career." Students feel that to some extent they lost their creativity during the rigorous preparation of JEE and the independence in IITs helps them explore the same. "My parents brought me up with a single ambition and taught me that engineering is a high paying, stable career. I started going to coaching institutes at the age of 12. Had I been older or mature, I would have looked for other options," says Sheetal Raghani, student from IIT Madras.

Similar surveys conducted last year showed that up to 90% BE/BTech graduates are working in fields unrelated to engineering. It is also not unknown that every year up to 60% engineering graduates take up management courses and get placed as Business Analysts or AVPs in private banks. Then there also those who apply for Civil Services exams like UPSC and join the IAS. Arvind Kejriwal, Manohar Parrikar, Ashok Khemka, Kiran Bedi, are some of the well-known IITians who took up civil services as a career. Besides, the big bulls in the finance industry like Raghuram Rajan and D. Subbarao are also former students of IITs. Although big names like these bring better efficiency to their fields with IIT education, they further highlight the results of such surveys. Today PSU banks are appealing against the Supreme Court order not allowing them to hire IITians on campus. PSUs say they are keen to harvest the talent and intelligence of such students. ([source](#)) What happens if this appeal receives a nod? In which direction is the student creativity being channelled? Banking is not the sector you expect an engineer to enter, especially when such survey statistics point to the same idea that engineers are taking up non-engineering jobs out of college.

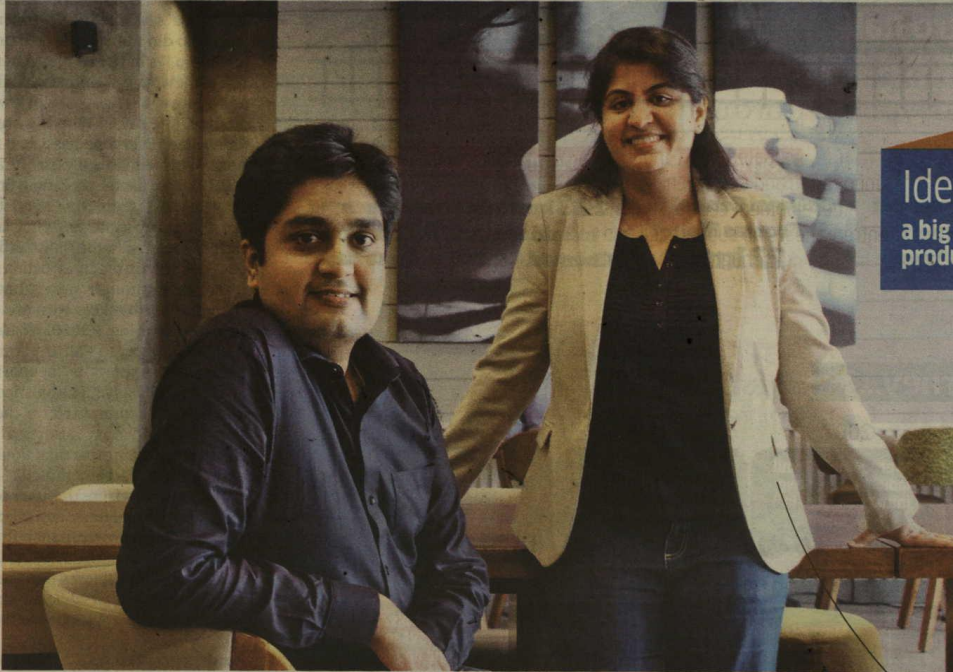
Every year the government invests lakhs of rupees on each such student. The number of IITs keeps increasing and the funds required to set up their infrastructure are enormous. Recently, meetings were held in Kashmir to launch an IIT in the valley as well. The broader view is that while the number of IITs and the students applying to them is increasing, how many of these students are actually making valuable contributions in core engineering? The surveys conducted over the years give similar views about India's falling rank in innovation and growing divergence of engineers in other fields.

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Economic Times ND 16/08/2015 P-22

# When IIT and IIM Meet

That Indore is the only city in India that is home to a premier engineering as well as business school is a boon for budding entrepreneurs



**Ideata Analytics**  
a big data intelligence  
product startup

**FOUNDED BY:** Sonam Jain and husband Pranjal Jain in 2013

**FOUNDERS' PROFILE:** Mid-career professionals who gave up jobs in the big data and innovation space, relocated to Indore from Mumbai

**REASONS FOR RELOCATION:** Indore is catching up with the startup wave, but is still cushioned when it comes to commercial rentals and bad traffic; has over 50 engineering colleges, plus an IIT and an IIM; **Madhya Pradesh government is encouraging startup growth in the city**

**:: Ishani Duttgupta**

**W**hen Sonam Jain and husband Pranjal decided to give up their jobs in Mumbai and start their own big data intelligence product company Ideata Analytics in 2013, Indore seemed to be the best choice. For two pretty straightforward reasons: both had grown up in that city; and both graduated from engineering colleges there. "Indore has long been the commercial capital of Madhya Pradesh and a major hub for textiles, utensils and manufacturing businesses.

And now IT startups too are setting up shop here," says Sonam.

The decision to move to Indore, however, had little to do with nostalgia; it was guided strictly by business logic. For instance, the 50-plus engineering colleges in the city provide the Jains with a large talent pool. More significant, though, as Sonam points out, is that it's the only city in India that is home to an Indian Institute of Management (IIM, set up in 1996) and an Indian Institute of

Technology (IIT, set up more recently in 2009). And this is enabling the Jains to fit into a thriving startup ecosystem in the city.

"These premier institutes are turning into breeding grounds that nurture the young entrepreneurial spirit. We have already seen some successful startups from IIT and IIM alumni in Indore and more and more graduates are now choosing entrepreneurship over jobs," says Sonam, adding that for young start-

*"These premier institutes [IIT-I and IIM-I] are turning into breeding grounds that nurture the young entrepreneurial spirit"*

**Sonam Jain**

## IIT-Indore set up in 2009

Has an innovation and entrepreneurship development centre (IEDC) with a student entrepreneurship support cell (SESC)

SESC organises an annual E-Week, an entrepreneurial extravaganza. And, is also an incubation centre for startups and funds the winner of a B-Plan contest

In its very first year, IEDC has filed four patents. Products and services from campus startups include GeekWare, Chota Hospital, Campus Ballot, WizCallRecorder and Occacus



## IIM-Indore Set up in 1996

Has an E-cell, a student-run club that organises entrepreneurship-related activities on campus including workshops and competitions in collaboration with VCs; E-Cell supports students of IIM-Indore who consider entrepreneurship as a career choice

Members of the E-Cell have also set up Juices and More (JAM), a food venture on the IIM-I campus to serve the student community

E-Cell is now collaborating with IIT-Indore for a two-day entrepreneurial summit, IS, that will feature a fund-raising platform Venture-I; open to startups across India that are looking for funding

Companies such as Uber, Lets-Venture, YourStory along with some local startups, Indore Entrepreneurship Network, Nasscom and National Entrepreneurship Network are participating



Pioneer ND 16/08/2015 P-7

# Indian-American scientist discovers wake-sleep mechanism

PTI ■ NEW YORK

An Indian-American scientist at Northwestern University in the US State of Illinois has found that a simple two-cycle mechanism controls waking-up and going-to-sleep process in animals during a 24-hour day.

Ravi Allada, circadian rhythms expert, recently discovered how an animal's biological clock wakes it up in the morning and puts it to sleep at night. A simple two-cycle mechanism turns key brain neurons on or off during a 24-hour day.

The clock's mechanism is much like a light switch, as per the findings published in the journal *Cell* on Thursday.

In a study of brain circadian neurons that govern the daily sleep-wake cycle's timing,

Allada and his research team found that high sodium channel activity in these neurons during the day turn the cells on and ultimately awaken an animal, and high potassium channel activity at night turn them off, allowing the animal to sleep.

Investigating further, the researchers were surprised to discover the same sleep-wake switch in both flies and mice.

"This suggests the underlying mechanism controlling our sleep-wake cycle is ancient," Allada was quoted as saying Northwestern University as saying. "This oscillation mechanism appears to be conserved across several hundred million years of evolution. And if it's in the mouse, it is likely in humans, too," Allada, professor and chair of neurobiology in the Weinberg College of Arts and Sciences, said.

Better understanding of this mechanism could lead to new drug targets to address sleep-wake trouble related to jet lag, shift work and other clock-induced problems. Eventually, it might be possible to reset a person's internal clock to suit his or her situation.

The researchers call this a 'bicycle' mechanism. Two pedals that go up and down across a 24-hour day, conveying important time information to the neurons.

That the researchers found the two pedals - a sodium current and potassium currents - active in both the simple fruit fly and the more complex mouse was unexpected.

"Our starting point for this research was mutant flies missing a sodium channel who walked in a halting manner and had poor circadian rhythms.

Hindustan Times ND 16/08/2015 P-7

# UGC cuts funds to colleges with weak governance structures

**FEE HIKE POSSIBLE** Funds from commission help meet most expenditure in DU colleges

**Shradha Chettri**

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**NEW DELHI:** The University Grants Commission (UGC) has decided cut funds to colleges run by trusts in Delhi University. Currently, the commission provides 95% of the funds required by such colleges for maintenance, in exchange for contributing 5% of the expenditure.

The UGC in a letter sent on August 7, to these colleges said it would reduce the grant assistance to 90% citing several reasons, including non-payment of the mandatory 5% expenses.

Colleges say this cut may result in increasing college fees to cover up for fund shortage.

"We have received a let-

**THE UGC'S LETTER TO COLLEGES ALSO STATES THAT UPON IMPROVING GOVERNANCE, THE FUNDING WILL BE REINSTATED**

ter and will meet on Monday to discuss it. If fees are to be increased, we will have to sit and discuss and get student representation on board before we take the decision," P Hemalatha Reddy, principal of Shri Venkateshwara College, said.

The 95% grant constitutes both planned and non-planned expenditure of colleges. From salary paid to the teaching,

non-teaching staff, college equipment and development grants all is covered by the 95% UGC grant.

UGC in its letter wrote, "In the meeting, it was decided that further 95% assistance may be reduced to 90% assistance to those colleges where the governance structure is weak, such as the post of principal being vacant and where the 5% mandate collection has not been provided for over a number of years and where compliance with UGC direction for filling extra students on special scheme of the government has not been adhered to."

There are about 20 trust-run colleges in DU, including well-known colleges such as Shri Ram College of Commerce

(SRCC), Hindu College, Hansraj College, Daulat Ram College, Shri Venkateshwara College, ARSD and others.

Among the 20, two are evening colleges—PGDAV College and Shyam Lal College. However, the UGC has suggested cutting grants for only day colleges.

Further UGC in its letter also notes, "All colleges will be enabled to collect their fees as per the decision and will inform the UGC about the same, but UGC will not deduct the funds if they collect fees to reduce the dependency."

However, the UGC's letter also notes that the 5% will be returned to colleges if they improve their governance structure within a year.



Economic Times ND 16/08/2015 P-5

# The Boy from Nehru Hall

A hostel-mate of new Google CEO Sundar 'Sundi' Pichai at IIT-Kharagpur rewinds to life with the 'boy' who was once a favourite of raggers



Pichai [extreme left, in check shirt] did not need much persuasion to jump on a table and do something absurdly self-deprecating or lean out of a balcony and hurl choice epithets (at a senior's bidding) at some unsuspecting passer-by. Sundi thus soon became a favourite of the raggers, something that usually leads to fairly strong ties between the ragger and the ragged.

## A Bag of Expectations

I don't have much of a recollection of Sundi for the rest of the academic year, other than the everyday interactions that hostel-mates routinely have. It does seem strange, in an impressive way, to think of that "boy" as now being the chief executive of Google. The internet has changed the world over the last decade and has contributed to significant gains in the lives of people in the developing world. However, I think that the jury is still out on how it finally plays out in terms of balancing inequality in today's world, or how our privacy is protected as the "internet of things" pervades every inch of space in our homes.

Google is going to be one of the companies that will play a strong role in shaping this development and for the foreseeable future, Sundi will be at the helm deciding the course of action. I wish him the best in his efforts and hope that the camaraderie at Nehru Hall, resulting in empathy for people from various backgrounds and needs, weighs heavily on his decision-making. From the various writeups I have read about his management style and his achievements at Google, this certainly seems to be the case.

The last recollection I have about him is from the end of my stay in IIT. I had brought a camera from home for a short while and one day I set off with a group of first-year students exploring various corners of the campus. It was a rainy day. We were definitely off the beaten path and the group that decided to make this trip included Sundi. I pulled out some of those pictures today and he looks fairly similar to pictures I see on the web. Little did we realise that we were looking at a future chief executive, heading a company whose core services would have felt like something out of a science fiction novel to all of us on that damp day in Kharagpur. ■

(The author is an energy engineer who works in Boston)

## :: Souvik Gangopadhyay

There has to be something in the water". This is a familiar refrain from those who had spent their years at Indian Institute of Technology-Kharagpur (IIT-KGP) assigned to Nehru Hall of Residence, in particular between the years '85 and '93. It was within these years that the hostel housed three individuals, two of whom went on to win Magsaysay awards

— Delhi chief minister Arvind Kejriwal and prominent social entrepreneur H Harish Hande — and became game changers in the Indian socio-economic-political sphere.

The third has been occupying the upper levels of Google management for some time now and was recently made the chief executive of what is one of the most significant players in the internet space, something that impacts not just our work but almost every facet of modern life.

There wasn't anything in the water except perhaps arsenic and bad bacteria. We all ingested both and, for the most part, survived. Nehru Hall, like every dorm in every college, has its share of people who went on to become captains of industry, achieved distinction in academia/research, excelled in fields unre-

lated to their degree or have shown great social responsibility. However, these three individuals clearly had something within that drove them to achievements which were a cut above the rest.

## Beyond What Met the Eye

It was in 1989 that a young Sundar Pichai (Sundi, as he was known in IIT) arrived in KGP and was greeted by a group of seniors at Nehru Hall who were ex-

cited at the prospect of yet another ragging period. Yes, those were the days in which ragging was still the norm. New entrants arrived fresh from the station, dropped their bags and were immediately led to a roomful of "raggers" who then proceeded to orient them in the ways of IIT-Kharagpur. It was a bit of a miracle if one was reunited with one's luggage that same day.

I recall Sundi as being someone who



It does seem strange, in an impressive way, to think of that "boy" — seen here standing in front of the plane, arms folded — as now being the chief executive of Google

I hope that the camaraderie at Nehru Hall, resulting in empathy for people from various backgrounds and needs, weighs heavily on his decision-making

PHOTOS: SOUVIK GANGOPADHYAY

## **“Digital India Week” being organized at NIT Srinagar from 17-22 August**

<http://www.scoopnews.in/det.aspx?q=49639>

Srinagar, August 15 (Scoop News)-National Institute of Technology Srinagar is organizing the Digital India Week from August 17 to 22. Dean Research and Consultancy, NIT Srinagar, Prof. Roohie Naz, who is also the Chairperson of the Computer Service Centre of the Institute, said that the event is a part of “Digital India”, a flagship programme of Government of India that aims to transform India into a digitally empowered society and knowledge economy. Therefore in order to fulfill the objectives of the scheme, NIT Srinagar is organizing the Digital India Week.

While elaborating about the details of the programme, she said various activities like paper presentation, poster presentation, Digi Art competition are scheduled during the digital week. Faculty, research scholars, M. Tech and B. Tech students shall be participating in the above events, she added.

In order to attract fertile minds towards the programme, cash award of Rs.5000 Rs.3000 and Rs.2000 for top three entries shall be given besides all other participants will be given participation certificates and a memento. The winners will be felicitated during the main event scheduled for 22nd August 2015.

Praising the institute Director for introducing innovative measures to make NIT Srinagar among the top engineering institutes, Prof. Roohie Naz said that Director of the Institute, Prof. Gupta is always open to organizing the programmes like Research Symposia, Conferences and Technical Festivals and scientific and technological events.

Prof. Rajat Gupta, the Director of the institute when contacted said that the event is actually the part of a full-fledged national level drive, boosting e-Governance, under the aegis of National e-Governance Division, Department of Electronics and Information Technology, Government of India. “It is a matter of pleasure that our students as well as research scholars will get benefited by such programmes with regard to the latest trends in digital world” he said.

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# Times Of India ND 17/08/2015 (Education Times) P-5



## **ROBOTICS COMPETITION**

The fourth edition of the e-Yantra Robotics Competition 2015 (eYRC 2015) is open to registration till August 31. Its theme is 'Smart Services'. Conceptualised by IIT Bombay and sponsored by the Union HRD ministry, the competition requires students to register as a team of four and take an online selection test. Selected teams are given a problem specified as a theme in a rule book along with a robotic kit and accessories to solve the problem. Students can register at <http://portal.e-yantra.org>

Times Of India ND 17/08/2015 (Education Times ) P-4

## STRESS ON SPOKEN ENGLISH

TIMES NEWS NETWORK

The recent expulsion of more than 70 students from IIT Roorkee brought forth crucial aspects of undergraduate education in competitive, English language institutes. (The students were later accepted back conditionally.) Close on the heels of the headline-grabbing news, a survey shows 67% of young engineers cannot 'walk or talk' English.

About three-fourth of engineers lack spoken English skills to qualify for a job in the knowledge economy, as per the National Spoken English Skills report, Engineers 2015-16, by an employability credentialing firm. Also, 97% cannot speak English required for corporate sales and business consulting jobs. The minimum CEFR (Common European Framework of Reference) level of English a fresh engineer requires for such positions is C2, the highest.

Fifty-one per cent of engineering graduates

are not employable due to their spoken English scores, according to the report, emphasising the importance of spoken language skills. In all, only 6.8% are able to speak/respond spontaneously. They can "speak fluently, with good pronunciation and proper sentence construction". Delhi, Mumbai-Pune and Bangalore score the highest for spoken English while Hyderabad and Chennai need to improve the most.

The language skills are relatively better as

one moves up the tiers of institutes.

The findings reflect the curriculum and pedagogy used in middle and high schools, said Varun Aggarwal, co-founder and CTO, Aspiring Minds, which conducted the study through the 20-minute SVAR test by phone.

"While the curriculum continues to be in English, students are not encouraged to converse in English right from school level. The emphasis has always been on understanding and writing English but hardly on spoken skills." Though the CBSE and Council for the Indian School Certificate Examinations have taken measures in the field in the last few

years, the focus is still limited, he added.

It is crucial to make the effort at an early stage because of the amount of time it takes learners to reach the requisite proficiency, he said. "The deficiencies otherwise become difficult to overcome during the four years of engineering education, thereby dampening

their employability." The study shows women are "slightly" better at written English and men at speaking. According to Aggarwal, the difference could be due to fewer opportunities for women to converse in English.



For more such stories, visit [www.educationtimes.com](http://www.educationtimes.com)

## Deccan Herald ND 17/08/2015 P-3

# DU, JNU can accept foreign funds even without FCRA registration 3

**NEW DELHI:** Delhi University, JNU, Gujarat National Law University are among a category of some 300-odd institutions in the country that are free to accept foreign donations without registration under FCRA.

A Home Ministry official has clarified that no restriction has been imposed on such institutions in accepting donations from abroad even though they are no longer registered under the Foreign Contributions Regulation Act (FCRA).

Registration of these institutions under FCRA was cancelled about two months back as they were deemed to not re-

quire registration under the amended FCRA.

As per the new rules, if an institution is created through an Act of Parliament or a state legislature or its accounts are audited by the Comptroller and Auditor General of India (CAG), it is not required to register under FCRA for accepting foreign contributions.

"Around 300 such institutions across the country are eligible to accept foreign contributions even though they are no longer registered under FCRA," the official said.

Apart from DU, JNU and Gujarat National Law University, other institutions eligible

to accept foreign contributions without FCRA registration include the IITs, Panjab University, School of Planning and Architecture.

The FCRA registration of more than 16,000 organisations was cancelled by the Union Home Ministry over the last one year for violating various provisions of the law, including non-filing of annual returns.

As many as 16 foreign donors, including US-based Ford Foundation and Greenpeace International, have been put on 'prior permission' category for defying FCRA rules.

**PTI**

## Digital libraries in all varsities soon: Smriti

August 17,2015, 05.09 AM IST | | THE HANS INDIA

<http://www.thehansindia.com/posts/index/2015-08-17/Digital-libraries-in-all-varsities-soon-Smriti-170571>

The main objective of the project is to create a knowledge base for students belonging to all ages and help them access all digitised educational content on a common platform

**Nellore:** Union HRD Minister Smriti Irani said they would shortly start digital libraries as part of the National Digital Library (NDL) in all universities across the country. Participating in a programme organized by the Swarna Bharat Trust on Sunday, Irani said the content required to build the NDL would be derived from the libraries of educational institutions from across the nation.



Union HRD Minister Smriti Irani addressing a meeting organised by the Swarna Bharat Trust in Nellore district on Sunday. Union Minister for Urban Development M Venkaiah Naidu, State Minister P Narayana and Nellore District Collector M Janaki

She said the main objective of the project is to create a knowledge base for students belonging to all ages and help students access all digitised educational content on a common platform. She said the government is also considering various projects to improve the standards of education.

Irani inaugurated a computer training centre on the Trust premises for the convenience of farmers intended to update their knowledge levels on advanced technologies in the sector. She also participated in Pushpayagam at the ACSR Stadium in Nellore city as part of Vaibhavotsavam.

# STRENGTHENING 'BRAND IIM'

Given that newer IIMs are a reality, rather than lamenting on lost exclusivity, the IIM brand should be strengthened around collective excellence



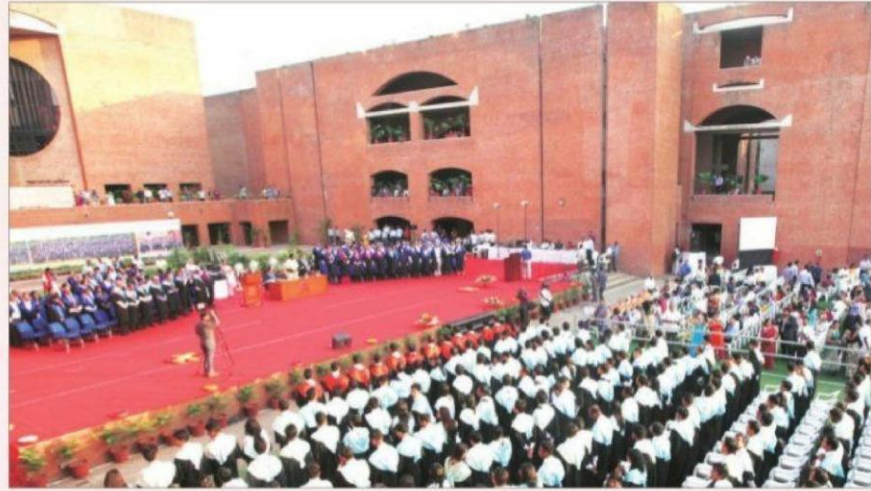
**KEYOOR PURANI**

**A**part from the IIM Bill, one more issue of strategic significance concerning the Indian Institutes of Management is being passionately discussed these days. In its history of the first 50 years, 'brand IIM' has built substantial equity. The questions that are being asked revolve around the possible dilution of this prestigious brand, which is respected the world over. With the six new IIMs likely to commence their activities from this academic season, the count has now risen to 19. It is also heard that with the J&K development package announcements, one more IIM in Jammu would be added soon.

What is particularly worrisome to many is the rapid introduction of new IIMs. A decade ago, there were six IIMs. The number has now tripled. Several stakeholders view the introduction of the "line extensions" of the brand IIM sceptically. The alumni of IIMs' flagship programmes are more vociferous in their criticism. Maybe because they are afraid of losing the exclusivity they have been used to. After all, with 90% applicants not making the rolls of these institutes, there undoubtedly is some elitism associated with the IIM brand. In a typical introduction of a product in a brand portfolio, the primary concern is how consumers would evaluate the newly introduced extension.

But the anxieties in the case of brand IIM are more around what brand management experts call the "revision of attitude towards the parent brand." Would adding newer IIMs make the parent brand—the IIM brand— weaker, diluted? These fears may be attributed to a possible "quality variance across brand portfolio," which is generally found to have negative effects on not just the "attitude towards the brand extension" but also the "revision of attitude towards the parent brand."

However, the practice and theory of brand management also suggest that brand extensions need not only result in negative effects. Such extensions, if successfully managed, may have positive effects as well on the parent brand. These include strengthening of the parent brand by enhanced market coverage and improved generalised preference for the family brand. Thus, thinking a little deeper, one may envisage that the introduction of new IIMs can actually help the IIM brand family emerge as a formidable force in global



The introduction of new IIMs can help the IIM family emerge as a formidable force in global management education. Even centuries-old leading business schools (such as Harvard) cannot boast of an intake of about 3,000 PG students in a batch, over 50,000 graduate alumni, close to 600 faculty members, 19 campuses across the country, with over 1,500 acres of campus land. Older IIMs need to recognise the potential of gaining from the 'extensions' to the IIM brand

management education. After all, even centuries-old leading business schools (such as Harvard Business School) cannot boast of an intake of about 3,000 PG students in a batch, over 50,000 graduate alumni, close to 600 faculty members, 19 campuses across the country, with over 1,500 acres of campus land. Older IIMs need to particularly recognise the potential of gaining from these "extensions" of the IIM brand.

The IIM brand may be considered to have two key associations—excellence and, to an extent, exclusivity. With the expanding IIM clan, the brand can be safeguarded and strengthened only by focusing on excellence. The challenge is to make every new IIM a centre of excellence in management education. At the same time, individual strategies, programmes and activities across the board cannot be standardised. Douglas Holt, Professor at Harvard Business School, argues that a brand needs to be thought of as the "culture of the product." What has contributed to brand IIM significantly is the robust culture in the initial five decades. Excellence in case of brand IIM, thus, needs to come out of a particular culture.

With the brand portfolio expanding rapidly, IIMs need to collectively focus on the culture that can define them as a

unified brand. Common purpose and shared values then become critical drivers to create a coherent meaning that circulates among various stakeholders of newer and older IIMs. While the government as the key stakeholder has been following a mentorship approach to establish newer IIMs, collectively all IIMs together are required to guard and spread the culture.

Among several possible ways of sharing values, three are easily recognisable and implementable.

**First is codification.** Values and fundamental beliefs that have built the equity of brands need to be identified and codified. Older IIMs who have strong institutional values need to codify them. Beyond articulation of vision-mission statements, they need to "author" stories that involve the IIM brand. These stories need to be canned in popular, shareable formats. Books such as *'Brick by Red Brick: Ravi Matthai and the Making of IIM Ahmedabad (2011)'* and *'Citizens and Revolutionaries: An Oral History of IIM Calcutta (2012)'* are two recent attempts. The Indian Business Museum at IIM Kozhikode is attempting to assemble such stories that have emerged from more than 50 years of history of the IIM brand.

**Second is collaboration.** While

each IIM would want to evolve as a unique institution, they should not forget that their reputation is influenced by fellow institutions as they belong to the same brand family. Sharing of values is difficult without collaboration. If common platforms are developed consciously beyond the Common Admission Test, collaboration and sharing would follow. Not only would the culture prevail, but the exchange of resources would provide a leverage that few independent business schools could attain. Launched a couple of years ago, the Pan-IIM World Management Conference brings together faculty and scholars from all IIMs. Pan-IIM alumni associations and other similar additional forums can be identified and built upon.

**Third is circulation.** Stories, images and associations that define the IIM culture have to be circulated actively. All active stakeholders across IIMs, particularly faculty and students, need to propagate the culture consciously. An important contribution in this area can come from the fellows—the doctoral students. The fellows of IIMs, upon completing their doctoral programmes, take up faculty roles. The fellows of IIMs who have observed, experienced and imbibed the IIM culture in their doctoral programmes could be the best messengers, the apostles. IIMs need to realise the importance of strengthening their fellow programmes in an effort to replicate the culture in relatively newer IIMs.

Given that newer IIMs are a reality, rather than lamenting on lost exclusivity, brand IIM should be strengthened around collective excellence. It is up to the IIMs to leverage the brand or allow it to be diluted.

*The author is professor of marketing at IIM Kozhikode. Views are personal*

## Mysuru may not get an IIT due to lack of space

<http://www.dnaindia.com/india/report-mysuru-may-not-get-an-iit-due-to-lack-of-space-2114930>

The proposed Indian Institute of Technology in [Karnataka](#) may not be set in Mysuru as the stipulated space cannot be provided, a leading daily reported.

Mysuru lost out on the opportunity by 1 acre of space, an official of the Ministry of Human Resources Development's Site Selection Committee told the daily. The guidelines say the location of the institute should provide space of 500 acres while Mysuru has set aside 499 acres.

While the SSC has to look into other requirements also, this rule in the guidelines may be prioritised as two other cities seem to provide more space. One being Raichur which offers 688 acres of space and second, Dharwad that offers 500-600 acres of space for the site, the official said.

He also told the daily that "finalisation of the land for setting up the IIT will be based on the recommendation of the SSC. The committee will visit Karnataka and finalise it by the end of August and as things stand now, 500 acres is a compulsory requirement."

The stipulated space for IIT has been an issue in other cities too, like Hyderabad, Patna, Jodhpur, Bhubaneswar, Indore, Ropar, [Gandhinagar](#) and Mandi. The official told the daily that even though the institutes were all established during the 11th Plan period, they still operate in temporary campuses as the respective state governments have not been able to find the required land space.

Since the state government made the announcement of establishing an IIT in the state, it has taken them almost six months to identify encumbrance free land, the daily reported.

## Award for IIT-M director

<http://www.thehindu.com/news/cities/chennai/award-for-iitm-director/article7545435.ece>

Indian Institute of Technology-Madras director Bhaskar Ramamurthi has been chosen for the Advanced Computing and Communications Society Foundation award for 2015 in recognition of his achievements in communications engineering and its impact on academic research in electrical engineering.

The award includes Rs. 1 lakh, citation and a plaque, which will be presented at the inaugural session of the advanced computing and communications conference at the institute in September.

August 18

Economic Times ND 18/08/2015 p-10

# Eye on Gen Y: New IITs Stretch Limits, Build Brand Muscle

Institutes remove controls on campus, encourage research, revamp curriculum and tap overseas talent for faculty

Prachi.Verma@timesgroup.com

## A New Edge

### IIT INDORE

Revamped its BTech course, giving students more time for research

Roped in academic talent from abroad to tackle faculty shortage

Rented out flats for students, staff to avoid any delay in starting operations

### IIT MANDI

Aligning some of its courses and research with the Himalayan region and folk wisdom on medicines

Tapping international institutes for exchange programmes

### IIT PATNA

Involved in interdisciplinary research and work

Building its courses and research in line with the heritage and culture of Bihar

### IIT PALAKKAD & TIRUPATI

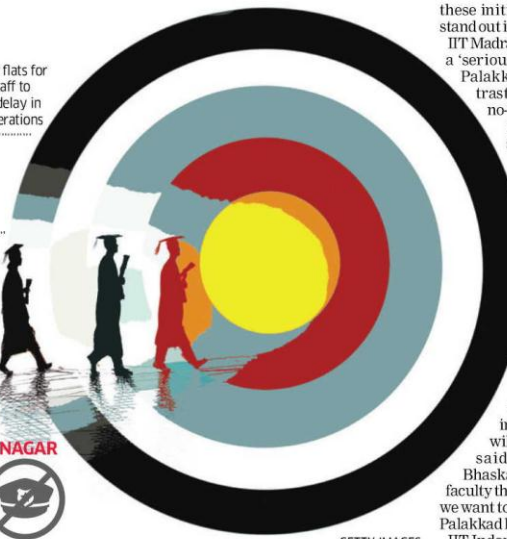
Using retired faculty and faculty from IIT Madras, which is mentoring the two institutes

### IIT GANDHINAGAR

Follows a no-policing policy for its students

New Delhi: IIT Gandhinagar is wooing the new generation of students, and wants to connect better with them. It believes in giving freedom to its students by treating them like adults, said its director, SK Jain. "There is no policing on campus. Our students are allowed to define their own limitations. We do not keep tabs on their movements within the campus; neither do we track their attendance," he added. Like the Gandhinagar institute, the other new Indian Institutes of Technology — established after 2008 — are undertaking a brand-building exercise to differentiate themselves from each other, each hoping its brand clicks with potential students. There are 11 new IITs, and they compete with their older, more established counterparts for attracting top-ranking students.

IIT Indore has revamped its BTech curriculum to give its students more time for research projects. IIT Patna and IIT Mandi are trying to integrate some of their courses with the heritage and culture of Bihar and Himachal Pradesh, respectively. All



these initiatives are an attempt to stand out in a herd of now 18 IITs.

IIT Madras is doing all it can to give a 'serious' tag to the new IITs — Palakkad and Tirupati, in contrast with IIT Gandhinagar's no-policing policy.

Most new IITs have no restriction on the use of the internet. "There is an open culture. Our students have unlimited, 24x7 access to the internet, which is not the case at most IITs," said IIT Ropar director, SK Das.

The new IITs, beginning their first academic session soon, are relying on retired professors to meet the talent crunch. "Retired faculty is around 50% of total faculty at these two institutes. The remaining will come from IIT Madras," said IIT Madras director, Bhaskar Ramamurthi. "It is the faculty that defines an institute and we want to ensure that Tirupati and Palakkad have the best," he said. IIT Indore too is tapping overseas

talent. Around 80-90% of the faculty is of Indian origin, and has moved to India from abroad. "I visit the US, UK and Germany on a regular basis to poach talent. It takes a lot of convincing but it's worth it," said IIT Indore director Pradeep Mathur.

Interdisciplinary research is being looked at seriously too. All 120 students in a batch at Mandi are involved in it from the very first year instead of the last year, as at a few old IITs. This means students from mechanical engineering, computer science and electrical engineering team up to work on a project from the very first year, said director, Timothy Gonsalves.

"IIT Patna will take seriously its original charter of focusing on interdisciplinary research," said Ajay Chowdhary, chairman — board of governors. It will also focus on Bihar's heritage. IIT Mandi too is aligning some of its courses and research with the Himalayan region.

The new IITs are also partnering with foreign institutes. IIT Mandi is partnering with the TU9 institutions of Germany. Its students can go to one of these institutions for academic, internship, and research opportunities for up to a year.

GETTY IMAGES

Economic Times ND 18/08/2015 P-10

# IIT Undergrads Freelance with Startups

## Two-way Street

Startups look for freelancers for short-term projects

### Freelance projects

include app development, analytics and machine learning, modelling, graphic and visual design, growth hacking and content marketing work, as they can be assigned and monitored remotely



"The best talent is always in their 20s when it comes to technology and designing. With age, most people do not evolve"

PRABHKIRAN SINGH, Co-founder, Bewakoof.com

Rica Bhattacharyya & Anumeha Chaturvedi

Mumbai | New Delhi: Akash Gaurav, third-year undergraduate student at IIT Bombay, earns ₹50,000-70,000 a month by developing software for startups and devoting not more than three hours of spare time a day. Agniva Si, third-year metallurgy student at IIT Roorkee, manages to make ₹50,000 a month by graphic designing and sketching for startups. With the rise of startups in India leading to a burgeoning volume of work, an increasing number of startups like Bewakoof.com, Venturesity, Jabong, TouchKraft, VanityCube are employing IIT students, mostly from the second and third year. The projects include app development, analytics and machine learning, modelling, graphic and visual design, growth hacking

and content marketing work as they can be assigned and monitored remotely.

"Companies gain by getting solutions while the students gain by getting exposure of two to four months," said Ashu Malhotra, head, human resources at Jabong. Around mid-July, IIT Bombay launched a cell for freelancers and co-founders for any startup looking for talent in mobile app, coding, designing, etc. In less than a month, the institute has received interest from more than 200 startups looking for talent to work with them on projects. Some of them include VanityCube, MobieFit, Flyrobe, TouchKraft, and Innovation. So far, the institute has connected about 150 students to startups. And 70% of the students are joining as freelancers as the main incentive is that they will be co-founders. TouchKraft made one of the highest offers so far of ₹1.50 lakh for freelance software devel-

opment talent, said Gaurav, web manager of the cell.

It is a win-win for students and startups. Startups have to pay several times more to hire a professional with five to six years' experience. Early stage startups, particularly, find students easier to afford. On their part, students can

earn between ₹30,000 and ₹1 lakh a month. Also, startups find talent in their 20s to be more tech savvy, an essential. "The best talent is always in their 20s when it comes to technology and designing. With age most people are not able to evolve," says Prabhkiran Singh, co-founder, Bewakoof.com.

He said his reason for working with people from college is to also stay connected to know what skills people have on campus.

"There has been a rise in companies giving short-term projects to IIT students...The primary reason is that students are picking up these new and hot skills for free by learning from online courses and making them useful/up to the mark," said Subhendu Panigrahi, IIT Kharagpur alumnus and co-founder, Venturesity. He has given students projects primarily in two areas — product development and growth hacking, with salaries ranging from ₹15,000 to ₹50,000 per month.

Students are also open to spending their free time in a more constructive way and earn some cash while studying. Most of them picking up such work aspire to start their own venture. These engagements help them get to know the founders and learn the nuances of running a startup.

Most of the work is either preceded or succeeded by a two-to-three-month internship, leading to more engagement.

Zomato organises Trial Week to handpick top talent for its technology team. The recruits spend a week at the company, working with the tech team on live projects.

"We sift through the hundreds of applications for the programme and shortlist a handful of candidates to come and spend an all-expenses-paid week with our tech team at our headquarters in Gurgaon," said Deepinder Goyal, founder & CEO, Zomato. Projects typically include tools used in daily operations, or features that will be included in their product. "People are welcome to apply even if they have a few years of code under their belt. All we expect from candidates is a serious passion for code, and a desire to get things done," he added.

For some of the students it is more of a passion and helps them test their acumen. "I would like to take design as a profession at a later stage and these projects give me good exposure," said Si of IIT Roorkee.





# IIT's NOT OK

*Large number of students failing should prompt an institutional rethink*

SANJAY G. DHANDE

SINCE THE 1990S, Brand IIT has grown enormously and India's middle class has become keener that their children study at these institutions. But school education has been inadequate to prepare students for the IIT joint entrance examination. So the coaching culture has grown. Students are subjected to a rigorous routine at coaching centres. Those who succeed and enter the hallowed portals of the IITs feel like they have arrived at the final destination of their career, little realising that they are at the starting line.

While schools believe in rote learning, the coaching system has created a culture of problem-solving at high speeds without emphasising understanding of fundamental concepts. The coaching culture also encourages some amount of guesswork and elimination-based thinking due to the multiple-choice format of the JEE. Then there is the language question. Since the language of instruction is English, some students find it hard to follow the lectures. Even when some IITs go out of their way to help such students, psychological barriers take time to overcome. And though counselling services are available, it is taboo among students to use them.

There is another significant aspect: relative grading, which has been practised at the IITs for 50 years. However, this system assumes that the sample is large and homogeneous. Unfortunately, over the years, the sample has become heterogeneous. In some IITs, grades are monitored by a committee. In others, the instructor's freedom is absolute. Students have complained about some harsh grading norms enforced by instructors. But the world of testing has moved

The regulatory regime has become outdated. The academic senate has created rules and regulations that are neither in tune with international best practice nor in response to genuine student feedback. In fact, when a large number of students fail a course, some introspection is needed on the part of teachers as well as academic regulators. Many universities in India and abroad have a different regime of academic movement for students in their first two semesters. These should be reviewed.

on considerably. Experts on testing could suggest several aspects where the IITs could improve — the field of psychometry is one such area. The time has come for the IITs to take a hard look at their approach to testing and bring reforms.

Besides testing, the teaching approach also needs to be re-evaluated. The present system evolved when the size of classes was small and the student body, homogeneous. Both these aspects have changed. Teaching is teamwork. A teacher is assisted by teaching associates, assistants and tutors. This team is effective only when it works in unison. When a class is large, the responsibility of the team is greater. The training and orientation of the team is important. In US universities, the student body is quite heterogeneous. Even so, students enjoy easy access to faculty and teaching assistants, so they don't feel there is a lack of communication.

The IITs should also look at technology as a game-changer for the teaching-learning paradigm. Students may, for instance, want to watch lectures on YouTube. Today, the digital infrastructure of an academic institution is as important as the physical infrastructure.

When a young student enters an IIT, she looks towards the faculty for personal guidance. Unfortunately, the size of the student body has become so large that close interaction is becoming difficult. The IITs could create a cadre of young doctoral students who can serve as academic associates. Such young persons would play a crucial role in the academic as well as psychological worlds of students. It must be mentioned categorically that unless postgraduate education at the

IITs is of a high standard and improved considerably, progress at the undergraduate level will be difficult. All international universities first strengthen their postgraduate education and then go on to improve undergraduate training. Unfortunately, in India, the IITs and others have not understood this.

The regulatory regime has also become outdated. The academic senate has created rules and regulations that are neither in tune with international best practice nor in response to genuine student feedback. In fact, when a large number of students fail a course, some introspection is needed on the part of teachers as well as academic regulators. Many universities in India and abroad have a different regime of academic movement for students in their first two semesters. These should be reviewed by the IIT Council as well as the academic senates.

The academic programme at an IIT consists of four components: the core programme, professional programme, project work and elective courses. Sufficient time and number of attempts should be allowed to students to complete the core programme. The maximum permissible time period should be double the regular timeframe. Project work and elective courses should be completed as part of the professional programme. Students must be given warnings first. They can then be placed on probation. These changes would give students enough opportunities to improve their performance. Dismissal should be the last resort.

*The writer is former director, IIT Kanpur, and member, UGC. Views are personal*

## IIT-B may lose elite tag as new research grants drop by 50%

<http://www.dnaindia.com/mumbai/report-iit-b-may-lose-elite-tag-as-new-research-grants-drop-by-50-2115149>

Make in India, Make in Maharashtra, Stand-ups, Start-ups...the slogans all sound impressive. But one of the poster boys of India's R&D, the Indian Institute of Technology (IIT), Bombay, is finding it hard to stand up and make it big.

New research grants to the prestigious institute has dropped by 50% over the past two years. The chain reaction it sets off can hit the institute hard. Funds crunch not only affects research output but also manpower hiring and establishment of facilities for long-term goals.

Revenue from consultancies is another worry. This revenue, which the IIT's professors earn for the institute by rendering services to outside organisations, has also declined — from Rs 35.2 crore to Rs 32.2 crore from 2013-14 to 2014-15. Faculty crunch, rising competition among IITs and curtailment of funds by the centre are said to be behind the drop in R&D aid.

IIT-B received Rs165.3 crore in 2014-15 for 294 new research projects in all areas of science, engineering, management and social sciences. This is less than half of what it received two years back - Rs343.5 crore for 225 projects, according to the director's report released at the 53rd convocation ceremony last week. What's worse, teachers fear that the grants would only further decrease as the Centre has slashed the education outlay by 2% for 2015-16.

Curtailed funds by the ministry of human resources development and other Union departments are supposed to be behind the funds crunch. Grants-in-aid for IITs were slashed by the Centre in the previous fiscal, though the extent of reduction couldn't be obtained immediately. The central government is the main sponsor, with over 70% grants, states the director's report.

Though global and domestic biggies like Bill and [Melinda Gates](#) Foundation, Ford Foundation, Intel, Samsung, Boeing, Yahoo, HAL, ICICI Bank, ONGC, Tatas, L&T and HPCL have tie-ups with the institute, all those are project-based and don't amount to much. So, does it in any way reflect the slide in the quality of R&D work? Efforts to get in touch with institute director Devang Khakhar evinced no response.

But academicians and professors offered a firm no for an answer. "IIT-B is not only a top-ranked institute in India, its electrical, computer, chemical and energy sciences departments are considered the best due to the most advanced and high level of research," said a professor.

Then, what's at fault? There's also a question of long-term government policy. "R&D needs a long-term approach. Harvard and MIT are able to innovate because of huge investments for decades," said a professor.

While the institute is roping in corporate houses, most of them are in wait-and-watch mode. "India Inc wants quick results, which is not possible at an educational institution. Hence, they prefer to buy technologies from abroad. On the other hand, corporate houses in the US and other countries support R&D work at educational institutions in a big way," rued a top official at IIT-B. Alumni are extending help, but that mainly goes for infrastructure development, he said.

Agreed Achyut Godbole, IT expert and author, and an IITian himself. "IITs, TIFR and IISc are the pillars of research. Reducing their grants would compromise our long-term goals badly. The US, the UK, Germany and even China are ahead of India, mainly because of the kind of research they are doing," he said.

Raj Desai, research manager of Centre for Alternate Technology in Rural Areas, IIT-B, said: "The research work at IITs and other institutions must be aligned with our national and regional goals. If the Centre and states identify key research and innovation areas needed for [Make in India](#) and Make in Maharashtra initiatives and put in their best efforts and money, I am sure our research work would get a boost."

Godbole had a final advice for the Centre. "The Centre must stop giving cheap loans to super-rich corporates, which often don't refund public money. Rather, the government should divert the same funds towards research institutions like IIT-B for a better India."

Indian Express ND  
18/08/2015 P-1

## IIT-R to make fireproof cover for Ayodhya site

**LALMANI VERMA**

LUCKNOW, AUGUST 17

THE FAIZABAD Divisional Commissioner, who is the receiver of the disputed Babri Masjid-Ram Janmabhoomi site in Ayodhya, has approached the Indian Institute of Technology-Roorkee for a fireproof sheet to cover the makeshift temple of Ramlalla at the site.

Last week, the Supreme Court allowed replacement of worn-out tarpaulin sheets and ropes at the makeshift temple.

The old cover will be replaced under the supervision of the commissioner and two court-appointed observers.

Faizabad Divisional Commissioner Surya Prakash Mishra told *The Indian Express* that a team of experts from IIT-Roorkee will be visiting Ayodhya on August 30 for a preliminary survey. He said the administration placed the order with IIT-Roorkee since it has expertise in preparing quality fireproof materials.

## Business Line ND 18/08/2015 P-10

# Harvard prof's advice for product firms: keep it simple

Customers look for ease of use, and not more features, says Stefan Thomke

**NS VAGEESH**

Mumbai, August 17

Customers want more features in the products they buy, right? Wrong.

What they want is a simple and better user experience and not a product packed with features, half of which they may never use, said Professor Stefan Thomke, William Barclay Harding Professor of Business Administration, Harvard Business School, in an interview with *BusinessLine* here. He was here for an Executive Education programme of the Harvard Business School.

Product development teams often believe that adding features creates value for customers and subtracting them destroys it.

This attitude, Thomke said, explains why products are so complicated — remote controls seem impossible to use, computers take a long time to set up, cars have so many switches and knobs that they resemble airplane cockpits, cell

phones abound where you struggle to figure out the dialling screen, and even the humble toaster now comes with a manual and LCD displays.

Companies need to make the user experience better and for that a deep understanding of what customers really do is required.

Criticising companies for taking the easy way out by adding features, Thomke said this is done more often than not in the hope that customers will overlook other shortcomings.

Enterprises often decide they are done with a particular product when they can no longer add features to the product, he pointed out, adding that it is the wrong way of going about it.

Instead, he said, you are really done when you are no longer able to take out things (features) from a product. Thomke recalled a personal example. Shop-

ping for a desktop computer, he was a bit wary of picking up a recent model that came without a CD drive.

Then, assuaged by the offer of a separate CD drive connected by a cable, he bought it. The CD drive has remained in his drawer for six months, untouched. Companies must have the courage to leave things out, he said.

Product reviewers will rip you apart when doing a feature-to-feature comparison.

### The iPad example

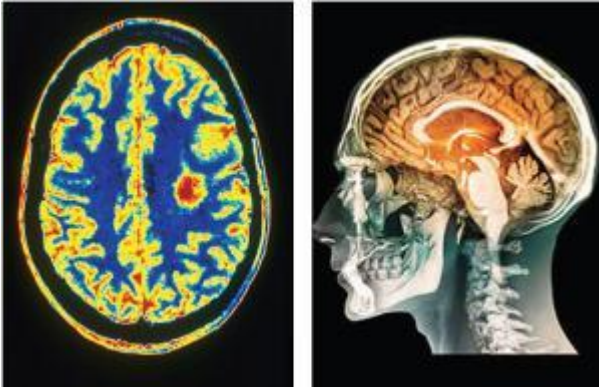
You have to be able to ride that, he cautioned, while recalling again that the ubiquitous iPad did not get many generous reviews at its launch. Everyone then wondered why customers would use an oversized phone. They did not look at how people were going to use it. Thomke's message is keep the user experience simple, even if the product itself is complex. In that case, hide the complexity for the customer, he added.



Stefan Thomke

## IISc researchers find easier way to detect brain tumours

<http://www.bangaloremirror.com/others/sci-tech/IISc-researchers-find-easier-way-to-detect-brain-tumours/articleshow/48515931.cms> 



Patients survive for an average of just 15 months from the time of diagnosis. Current therapies are effective only for a few patients. The development of new drugs and therapies is limited by a better understanding of which molecules to target. Also, the conventional glioblastoma (GBM) diagnosis methods such as MRI or CT scan are costly, laborious, and offer little in terms of identifying novel target molecules.

A recent study led by Dr Kumaravel Somasundaram, Professor at the department of microbiology and cell biology at Indian Institute of Science (IISc), Bengaluru, has identified a suitable target molecule and demonstrated how cost-effective, easy, and minimally invasive techniques such as blood analysis can be used to identify such targets. Serum is the fluid component of blood that is obtained after blood is allowed to clot, and can thus be obtained from a patient while taking samples for routine blood tests. The study has identified three proteins that have very different levels in the serum of GBM patients, as compared to healthy individuals. CRP is much higher in GBM patients but LYAM1 and BHE40 are relatively lower. "Looking at the levels of these three proteins in the serum, we can predict with 90% accuracy whether the individual is a GBM patient or not", said Mamatha Nijaguna, the lead author. CRP, or C-reactive Protein, is released by the liver in response to inflammation. It binds to the surface of dead or dying cells and bacteria, acting as a marker for the body's clean up machinery. "We were intrigued to find CRP in our list; because it is synthesized not by brain cells, but by liver cells. This finding motivated us to investigate how is CRP higher in GBM patients, and what advantages it has for the tumor", says Somasundaram.

The authors found that the cells in the brain tumor were secreting a molecule in the blood known as Interleukin-6 (IL-6), which travelled via the blood to the liver and 'instructed' the liver cells to produce and release higher levels of CRP than usual into the blood. "But our results show that CRP is not promoting cell division, migration, or drug resistance in tumour cells — all these traits are the 'hallmarks' of cancer," says Nijaguna.

Rather, CRP, after it reaches the brain via circulation, instructs special cells in the brain that take on the immune defense of the nervous system — the microglial cells — to produce another protein IL-1 $\beta$ . This protein in turn promotes the survival of the cells in the brain responsible for blood vessel growth in the GBM—and can therefore be potential candidates for developing targeted therapy. "Cancer is a bundle of uncontrollably fast-dividing cells; such fast division requires nutrients and oxygen, and therefore cancer needs more blood vessels directly feeding into it all the time," says Somasundaram.

The study also shows that GBM patients with relatively higher CRP levels have a shorter survival period after diagnosis, indicating the use of CRP as a marker of poor prognosis.

"The cascade of events — GBM promoting IL-6 that travels to the liver and instructs the liver cells to produce more CRP that again travels back to the brain and instructs the microglial cells to produce IL-1 $\beta$  — is fascinating. It clearly shows that tumors are not just local bundles — they can communicate with and enslave many normal cells in the entire body." **ScienceRight release, IISc**

## **IITs are a world apart when it comes to tech education. They know it and now they're flaunting it!**

<http://www.businessinsider.in/IITs-are-a-world-apart-when-it-comes-to-tech-education-They-know-it-and-now-theyre-flaunting-it/articleshow/48524586.cms>

IITs are adopting different methods and ways to attract creamy layer of [students](#) and also to stand out from other IITs.

Several IITs like Gandhinagar, Mandi, Patna, Indore etc are breaking away from the old-school method of [teaching](#) and disciplining students.

For instance, IIT Gandhinagar is not policing students and have given freedom to pupils to define their own limitations.

"IIT Gandhinagar believes in giving freedom to its students by treating them like adults. There is no policing on campus. Our students are allowed to define their own limitations. We do not keep tabs on their movements within the campus; neither do we track their attendance," director, SK Jain, told Economic Times.

IITs, which were mostly built after 2008, are engaged in brand-building to click with potential students.

While, IIT Indore has revamped its [BTech curriculum](#) to give its students more time for research projects, IIT Patna and Mandi are trying to integrate some of their courses with the heritage and culture of Bihar and Himachal Pradesh, respectively.

"IIT Patna will take seriously its original charter of focusing on interdisciplinary research," Ajay Chowdhary, chairman - board of governors, told ET.

Meanwhile, IIT Madras will 'serious' tag to the new IITs - Palakkad and Tirupati.

IIT Ropar is giving unlimited access to [internet](#) to students, which is not the case in many IITs.

IITs, which will begin with first academic session soon, are also getting retired professors.

"Retired faculty is around 50% of total faculty at these two institutes. The remaining will come from IIT Madras. It is the faculty that defines an institute and we want to ensure that Tirupati and Palakkad have the best," IIT Madras director, Bhaskar Ramamurthi, told ET.

IIT Indore too is tapping overseas talent and IIT Mandi too is aligning some of its courses and research with the Himalayan region

## Pan-IIT Brainstorming on to Tap Hydrates

<http://www.newindianexpress.com/cities/chennai/Pan-IIT-Brainstorming-on-to-Tap-Hydrates/2015/08/17/article2978450.ece>

CHENNAI: With the expensive liquified natural gas (LNG) being imported from Qatar annually while global oil prices plummet, the focus has shifted to hydrates as an additional viable source to meet future demands.

India is geologically located to produce enough gas from hydrates that can meet national demand for 200 to 300 years, according to experts at the Indian Institute of Technology, Madras.

This indigenous liquified natural gas if made commercial can meet the demands of automobiles, power plants, help fertiliser production while curtailing dependence on imports.

### ONGOING RESEARCHES

**THERMAL STIMULATION** - At IIT-Madras and the National Institute of Ocean Technology. Involves sourcing hydrates by pumping steam/hot fluids into the seabed. Done by Canada

**DEPRESSURISATION**  
- AT IIT-MADRAS. IT ESSENTIALLY REDUCES PRESSURE AND DRAWS OUT GAS FROM HYDRATE CRYSTALS. LARGELY DONE IN JAPAN

**CARBON DIOXIDE SEQUESTRATION**  
- At IIT-Kanpur & IIT-Delhi. Co2 is pumped into reservoirs to pull out methane gas. Doubly beneficial if this Co2 can be sourced from power plants and factories, which let out Co2 as by-product. Is safe under the sea-bed and even in the event of an earthquake

ALTHOUGH EXTRACTION CAN BE EXPENSIVE, THE PAN-IIT FRAMEWORK IS WORKING WITH ONGC TO FIGURE OUT A TIME AND COST EFFECTIVE PROCESS

— KRISHNAN BALASUBRAMANIAN, Dean of IC&SR, IIT-M

Chemically known as methyl hydrates, these ice-like crystals have whetted the interest of the Oil and Natural Gas Corporation (ONGC), which along with all the IITs is currently carrying out a large-scale research on identifying, procuring and refining it.

According to Krishnan Balasubramanian, the Dean of IC&SR, IIT-M, although extracting these hydrates that occur hundreds of metres below the seabed can

be expensive, the pan-IIT framework is working with ONGC to figure out a time and cost effective process that can help put it in the market in the coming years.

Hydrates are essentially formed in places where the temperature is low and the pressure high. This rules out any surface hydrates in India as the temperature

on the ground is always above 30 degree Celsius. Away from mainland, they are found along the Mahanadi basin, Krishna-Godavari basin, Andaman and Nicobar basin.

A pan-IIT system has been established to study different aspects to understand which process works best for each reservoir. For, various aspects like geology, geophysics and temperature, which vary depending on the reservoir, all figure in finding out how to dig for the gold.

The research plans to put hydrates on the commercial market by 2017-2018. "Of course it will be expensive to begin with, but as it becomes more easily procurable the cost margin too will reduce," says Ocean Engineering Professor Jitendra Sangwai, IIT Madras who is now lab testing Hydrates.

Hydrates research, which is part of several long-term research ventures between the IITs and ONGC, is currently being funded by the ONGC and scaled at Rs 50 crore this year, said a source.

## More and more IIT undergrads freelancing with startups

MUMBAI: Akash Gaurav, third-year undergraduate student at IIT Bombay, earns Rs 50,000-70,000 a month by developing software for startups and devoting not more than three hours of spare time a day. Agniva Si, third-year metallurgy student at IIT Roorkee, manages to make Rs 50,000 a month by graphic designing and sketching for startups.

With the rise of startups in India leading to a burgeoning volume of work, an increasing number of startups like Bewakoof.com, Venturesity, Jabong, TouchKraft, VanityCube are employing IIT students, mostly from the second and third year. The projects include app development, analytics and machine learning, modelling, graphic and visual design, growth hacking and content marketing work as they can be assigned and monitored remotely.

"Companies gain by getting solutions while the students gain by getting exposure of two to four months," said Ashu Malhotra, head, human resources at Jabong.

Around mid-July, IIT Bombay launched a cell for freelancers and co-founders for any startup looking for talent in mobile app, coding, designing, etc. In less than a month, the institute has received interest from more than 200 startups looking for talent to work with them on projects.

Some of them include VanityCube, MobieFit, Flyrobe, TouchKraft, and Innovision. So far, the institute has connected about 150 students to startups. And 70% of the students are joining as freelancers as the main incentive is that they will be co-founders. TouchKraft made one of the highest offers so far of Rs 1.50 lakh for freelance software development, said Gaurav, web manager of the cell.

It is a win-win for students and startups. Startups have to pay several times more to hire a professional with five to six years' experience. Early stage startups, particularly, find students easier to afford. On their part, students can earn between Rs 30,000 and Rs 1 lakh a month.

Also, startups find talent in their 20s to be more tech savvy, an essential. "The best talent is always in their 20s when it comes to technology and designing. With age most people are not able to evolve," says Prabhkiran Singh, co-founder, Bewakoof.com. He said his reason for working with people from college is to also stay connected to know what skills people have on campus.

"There has been a rise in companies giving short-term projects to IIT students...The primary reason is that students are picking up these new and hot skills for free by learning from online courses and making them useful/up to the mark," said Subhendu Panigrahi, IIT Kharagpur alumnus and co-founder, Venturesity. He has given students projects primarily in two areas — product development and growth hacking, with salaries ranging from Rs 15,000 to Rs 50,000 per month.

Students are also open to spending their free time in a more constructive way and earn some cash while studying. Most of them picking up such work aspire to start their own venture. These engagements help them get to know the founders



and learn the nuances of running a startup.

Most of the work is either preceded or succeeded by a two-to-three- month internship, leading to more engagement.

Zomato organises Trial Week to handpick top talent for its technology team. The recruits spend a week at the company, working with the tech team on live projects.

"We sift through the hundreds of applications for the programme and shortlist a handful of candidates to come and spend an all-expenses- paid week with our tech team at our headquarters in Gurgaon," said Deepinder Goyal, founder & CEO, Zomato. Projects typically include tools used in daily operations, or features that will be included in their product.

"People are welcome to apply even if they have a few years of code under their belt. All we expect from candidates is a serious passion for code, and a desire to get things done," he added.

For some of the students it is more of a passion and helps them test their acumen. "I would like to take design as a profession at a later stage and these projects give me good exposure," said Si of IIT Roorkee.

# Academic Ranking of World Universities 2015 results

China continues to advance, but Japan dips in Shanghai Jiao Tong ranking based on research strength

August 15 2015

<https://www.timeshighereducation.co.uk/news/academic-ranking-world-universities-2015-results>

Harvard University tops the list for the 13th year in a row

Mainland China has continued to improve its performance in the Academic Ranking of World Universities, but the US and Europe still dominate the table.

China has 32 universities in the top 500 table, the same number as last year, but they are edging up the ranks. Seven of these are in the top 200, compared with six last year, now that Sun Yat-sen University has leaped from the 201-300 band to the 151-200 group. The country also still has six of its universities in the 201-300 band, after Jilin University moved up from the 301-400 band in last year's table, which is based on research prowess and is compiled by Shanghai Jiao Tong University.

Meanwhile, Japan's performance has declined this year. The country has 18 institutions represented, down from 19, after Waseda University dropped off the table. Japan's universities are also falling out of the upper echelons of the ranking: the country has one fewer institution in the top 200 (seven, compared with eight last year) and one more in the 401-500 band (six, compared with five last year).

Overall the US dominates the table, claiming more than half (51) the spots in the top 100. Harvard University is number one for the 13th year in a row. The rest of the top 10 also remains unchanged from last year, comprising Stanford University; the Massachusetts Institute of Technology; the University of California, Berkeley; the University of Cambridge; Princeton University; the California Institute of Technology; Columbia University; the University of Chicago; and the University of Oxford.

The UK has nine universities in the top 100, one more than last year, with the University of Warwick (92nd) making its debut in the top fifth of the table. However, many of the top UK institutions have slipped down the list: Imperial College London has dropped one place to 23rd, the University of Manchester has dropped three places to 41st, and the University of Edinburgh has dropped two places to 47th.

Wendy Piatt, director general of the Russell Group, said that if the UK is to stay at the front of the pack, it must "fend off fierce competition from countries like China and Germany".

She added: "Increasing funding in science, research and innovation is essential to keep our leading universities at the top of the table and to make sure the UK maximises its economic potential."

**Below is a list of the top 100 institutions in the Academic Ranking of World Universities 2015 including links to the profiles of those institutions also featured in the [Times Higher Education World University Rankings 2014-15](#).**

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## Academic Ranking of World Universities 2015: top 100

Rank	Institution	Country
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1	<a href="#">Harvard University</a>	US
2	<a href="#">Stanford University</a>	US
3	<a href="#">Massachusetts Institute of Technology</a>	US
4	<a href="#">University of California, Berkeley</a>	US
5	<a href="#">University of Cambridge</a>	UK
6	<a href="#">Princeton University</a>	US
7	<a href="#">California Institute of Technology</a>	US
8	<a href="#">Columbia University</a>	US
9	<a href="#">University of Chicago</a>	US
10	<a href="#">University of Oxford</a>	UK
11	<a href="#">Yale University</a>	US
12	<a href="#">University of California, Los Angeles</a>	US
13	<a href="#">Cornell University</a>	US
14	<a href="#">University of California, San Diego</a>	US
15	<a href="#">University of Washington</a>	US
16	<a href="#">Johns Hopkins University</a>	US
17	<a href="#">University of Pennsylvania</a>	US
=18	University of California, San Francisco	US
=18	<a href="#">University College London</a>	UK
20	<a href="#">ETH Zürich – Swiss Federal Institute of Technology Zurich</a>	Switzerland
21	<a href="#">University of Tokyo</a>	Japan
22	<a href="#">University of Michigan</a>	US
23	<a href="#">Imperial College London</a>	UK
24	<a href="#">University of Wisconsin-Madison</a>	US

25	<a href="#">University of Toronto</a>	Canada
26	<a href="#">Kyoto University</a>	Japan
=27	<a href="#">New York University</a>	US
=27	<a href="#">Northwestern University</a>	US
29	<a href="#">University of Illinois at Urbana-Champaign</a>	US
30	<a href="#">University of Minnesota</a>	US
31	<a href="#">Duke University</a>	US
32	<a href="#">Washington University in St Louis</a>	US
33	Rockefeller University	US
34	<a href="#">University of Colorado at Boulder</a>	US
35	<a href="#">University of Copenhagen</a>	Denmark
36	<a href="#">Pierre and Marie Curie University</a>	France
37	<a href="#">University of Texas at Austin</a>	US
38	<a href="#">University of California, Santa Barbara</a>	US
39	<a href="#">University of North Carolina at Chapel Hill</a>	US
40	<a href="#">University of British Columbia</a>	Canada
=41	<a href="#">Paris-Sud University</a>	France
=41	<a href="#">University of Manchester</a>	UK
43	<a href="#">University of Maryland, College Park</a>	US
=44	<a href="#">University of Melbourne</a>	Australia
=44	University of Texas Southwestern Medical Center at Dallas	US
46	<a href="#">Heidelberg University</a>	Germany
47	<a href="#">University of Edinburgh</a>	UK
48	<a href="#">Karolinska Institute</a>	Sweden

49	<a href="#">University of Southern California</a>	US
50	<a href="#">University of California, Irvine</a>	US
51	<a href="#">Technical University of Munich</a>	Germany
52	<a href="#">Ludwig Maximilian University of Munich</a>	Germany
53	<a href="#">Vanderbilt University</a>	US
54	<a href="#">University of Zurich</a>	Switzerland
55	<a href="#">King's College London</a>	UK
56	<a href="#">Utrecht University</a>	Netherlands
57	<a href="#">University of California, Davis</a>	US
=58	<a href="#">University of Oslo</a>	Norway
=58	<a href="#">University of Geneva</a>	Switzerland
60	<a href="#">Pennsylvania State University</a>	US
=61	<a href="#">Uppsala University</a>	Sweden
=61	<a href="#">Carnegie Mellon University</a>	US
=61	<a href="#">Purdue University</a>	US
=64	<a href="#">McGill University</a>	Canada
=64	<a href="#">Rutgers, the State University of New Jersey</a>	US
66	<a href="#">University of Bristol</a>	UK
=67	<a href="#">University of Helsinki</a>	Finland
=67	<a href="#">Hebrew University of Jerusalem</a>	Israel
=67	<a href="#">Ohio State University</a>	US
70	<a href="#">University of Pittsburgh</a>	US
71	<a href="#">Ghent University</a>	Belgium
72	<a href="#">École Normale Supérieure</a>	France

=73	<a href="#">Aarhus University</a>	Denmark
=73	<a href="#">Boston University</a>	US
=75	<a href="#">University of Groningen</a>	Netherlands
=75	<a href="#">Brown University</a>	US
=77	<a href="#">Australian National University</a>	Australia
=77	<a href="#">University of Queensland</a>	Australia
=77	<a href="#">Technion Israel Institute of Technology</a>	Israel
=77	<a href="#">Nagoya University</a>	Japan
=77	<a href="#">Stockholm University</a>	Sweden
82	<a href="#">Leiden University</a>	Netherlands
83	<a href="#">University of Florida</a>	US
84	<a href="#">Rice University</a>	US
85	<a href="#">Osaka University</a>	Japan
86	<a href="#">Lomonosov Moscow State University</a>	Russia
=87	<a href="#">University of Western Australia</a>	Australia
=87	<a href="#">University of Strasbourg</a>	France
=87	<a href="#">University of Basel</a>	Switzerland
=90	<a href="#">KU Leuven</a>	Belgium
=90	<a href="#">University of Arizona</a>	US
92	<a href="#">University of Warwick</a>	UK
=93	<a href="#">Arizona State University</a>	US
=93	<a href="#">University of California, Santa Cruz</a>	US
=93	<a href="#">University of Utah</a>	US
96	<a href="#">McMaster University</a>	Canada

97	<a href="#">University of Bonn</a>	Germany
98	<a href="#">VU University Amsterdam</a>	Netherlands
99	<a href="#">Michigan State University</a>	US
100	<a href="#">Texas A&amp;M University</a>	US