Newspaper Clips

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Business Line ND 16/09/2012 P-3

IITs not among top 200 global varsities, rues Pranab

Abhishek Law

Kharagpur, Sept 15

President Pranab Mukherjee on Saturday expressed dismay over recent reports about Indian educational institutions of higher learning not figuring among the list of top 200 universities in the world.

Speaking at the 58th convocation ceremony of the Indian Institute of Technology at Kharagpur — located 150 km from Kolkata — Mukherjee raised questions as to why even the premier IITs did not feature in such a list.

"I feel it is necessary to share with you my sense of dismay on seeing, in the recent reports, that not a single Indian university or institute of higher learning including the premier IITs figure in the list of 200 top-rated universities of the world," he told students at the convocation ceremony.

Pranab Mukherjee with Union Civil Aviation Minister Ajit Singh during the 58th Annual Convocation of IIT Kharagpur on Saturday. — PTI

According to Mukherjee, while the merits of such a survey were indeed questionable, the more important point was why a "rising economic superpower" like India had failed to make it among the top 50 or 100 universities of the world.

Mukherjee, however, maintained that the IITs have the responsibility of ensuring continual revitalisation of their institutions through research, experimentation and innovation.

According to him, it is necessary to start now the urgent task of encouraging "scientific temperament" among the students. "It is necessary to design, without delay, appropriate learning experiences for our students," he said.

Praising the IIT system, he said that it has become the symbol of "progress and success of Indian in the field of technology".

Kolkata Bureau reports

Meanwhile, the President said here that the country was passing through tough times and all the stakeholders should work collectively to overcome the crises.

"We are passing through difficult times. (But), we should not feel disappointed or despondent. Rather, we should overcome this by our collective efforts," Mukherjee said during a felicitation ceremony organised by various city-based chambers of commerce.

Issues such as high inflation, current account deficit, low growth rates were undoubtedly areas of concerns, he said. However, he added, there were "umpteen" number of stories when India had been able to come out of such crises.

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Hindu ND 16/09/2012 P-7

Pranab saddened by reports that no Indian university figures in top 200

Staff Reporter

KHARAGPUR: President Pranab Mukherjee said on Saturday it was sad that as per recent reports not a single Indian university figured on the list of 200 top-rated universities globally.

"I feel I should share with you, my sense of dismay on seeing in recent reports, that not a single Indian university or institute of higher learning, including the premier IITs, figures in the list of 200 top-rated universities globally," Mr. Mukherjee said at the 58th annual convocation of the Indian Institute of Technology - Kharagpur.

Stating that some people might question such surveys, he pointed out that the question that came to his mind was: "Why are we, a rising economic superpower, unable to promote our standards, so as to be rated, indisputably, among the top 10 or even top 50 or 100?"

Scientific temperament

Mr. Mukherjee emphasised that there was an urgent need to develop a "scientific temperament" and provide "appropriate learning experiences" to the students.

There must be more collaboration, exchanges, and cross-pollination with the best minds in India and abroad, he said.

"I stress that IITs, as leaders, have the responsibility of providing continuous revitalisation in their institutions through research, experimentation, and innovation," he said.Welcoming IIT Kharagpur's 'Vision 2020,' aimed at getting into the list of top 20 global education institutes by the year 2020, he wished the institute success in its future pursuits.

Mr. Mukherjee said IIT Kharagpur, from its inception, had been infused with a "pioneering spirit," pointing out that perhaps it was so because the institute was housed in a building hallowed by some of India's greatest freedom fighters.

He recalled how the sacrifice of freedom fighters at the Hijli detention camp, which later became the first IIT (IIT Kharagpur), had galvanised national leaders.

Mr. Mukherjee also described the IIT system as a "symbol of progress and success of India in the field of technology," and added that IIT's alumni were achievers and leaders in every sphere of human activity.

He advised the graduating students that "creation of jobs" should always be among their priorities when they conceived new concepts and ideas.

West Bengal Governor M.K. Narayanan said IITs had become an "international brand," and had put India on the technology map.

Business Line ND 16/09/2012 P-14

Visually-challenged IIT-ian gets math gold

President Pranab Mukherjee with IIT Kharagpur Director Damodar Acharya (left) presenting the Professor Jagadish Chandra Bose Memorial Gold Medal award to Pratish on Saturday. — PTI

Abhishek Law

Kharagpur, Sept. 15

She hugged her 23-year old visually impaired son, Pratish, oblivious to the 2,000-strong audience that included President Pranab Mukherjee, attending the IIT-Kharagpur convocation. Ranjana Dutta's son Pratish had made her a proud mother

Born without vision, Pratish, who has completed his M.Sc. in Mathematics, won the Jagdish Chandra Bose Memorial Gold Medal for his excellent academic performance.

Suffering from retinoschisis — an eye disease characterised by the abnormal splitting of the retina's neurosensory layers resulting in a loss of vision — he does all his mathematical calculations mentally and then dictates them to a scribe during examinations.

"The credit for my success goes to my parents. If I studied for 10 hours, it was my mom who worked 15 hours to ensure that I successfully memorised my lessons. And, dad was always there to encourage me whenever I was low on confidence," Pratish told *Business Line.*

Born at Batanagar (20 km south west of Kolkata) to Prabir, a civil engineer with a government undertaking, and Ranjana, a home-maker, Pratish has depended on his mother for studies. She would read out his lessons and he would memorise them.

"My mother has been instrumental in helping me out. If I found some calculation interesting, I would ask her to jot it down and read out," he said.

After clearing his graduation (Bachelor of Science in Mathematics) from Kolkata's St. Xavier's with 88 per cent marks, he joined IIT-Kharagpur. With a score of 9.87, he topped his Master's batch.

"My professors and friends have helped me in whatever way they can," he recalled his days at the IIT.

Dreaming big, Pratish now wants to complete his Ph.D. in Cryptology and Network Security from IIT-Kharagpur itself.

"My aim in life is to serve the nation by inventing tools that will help society," he added.

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Times of India ND 17/09/2012

P-15

Blind student wins IIT gold

Jayanta Gupta | TNN

Kharagpur: The concept of darkness is in the mind. For many sightless people, the world around is little more than a dark void. Not so for Pratish Datta. On Saturday, when he strode to the dais, aided by mother Ranjana to receive the Professor Jagadish Chandra Bose Memorial Gold Medal from President Pranab Mukherjee, he had succeeded in proving that one sees through the mind, not the eyes.

Pratish, who lost his eyesight when he was in college in Kolkata, was awarded for the best academic performance among outgoing students of the M.Sc courses in the science disciplines at the IIT. He is from the department of mathematics.

Pratish has already begun his PhD in cryptology and network technology at IIT. "My parents are my inspiration. They never made me feel that there was anything wrong. I received tremendous support from my teachers and buddies. My friend and classmate Fauzal Atik took great care of me at IIT," Pratish said.

Pratish was six months old when doctors told his parents that he had 'retinoschesis', in which the layers inside the retina gradually get separated from each other, eventually leading to total blindness. By Class VIII, he had to use high-powered magnifying glasses to study. "His mother would read out his lessons to him," said Pratish's father Prabir Datta. "All credit goes to his mother. He even ranked second in the country in GATE this year. We feel so proud. My boy is no different... Rather, he is better than many," Datta said.

The Statesman ND 16/09/2012 P-5

President for promoting scientific temperament

pti & sns

KHARAGPUR, 15 SEPT: Voicing dismay over Indian educational institutions not finding a place among the world's top universities, President Pranab Mukherjee today sought the revitalisation of efforts to inculcate a scientific temperament among students and provide them with facilities to achieve this.

"Not a single Indian university or institute of higher learning, including the premier IITs, figures in the list of 200 top-rated universities of the world.

"To my mind the more important question is why? Why are we, a rising economic superpower, not able to promote our standards to be rated, indisputably, among the top 10 or even top 50 or 100," Mr Mukherjee said at the 57th convocation of the prestigious Indian Institute of Technology here.

West Bengal Chief Minister Mamata Banerjee, who had set a 72-hour deadline to the government for withdrawal of the decision on opening FDI in retail, and Railway Minister Mukul Roy stayed away for the function. The President said it was "necessary to start now with the urgent task of developing in our students, a scientific temperament. It is necessary to design, without delay, appropriate learning experiences for our students." Maintaining that there was no reason why the most modern methods and teaching aids should not be made available to teachers and students, he said: "Our younger generations should be encouraged through all means to learn and explore more and contribute more to society."

"To my mind, the important question is why? Why are we, a rising economic super-power, not able to promote our standards to be rated, indisputably, among the top 10 or even top 50 or 100 educational institutions?"

Mr Mukherjee said adaptation and application of new technology to Indian conditions and requirement would open up new market opportunities and these must be made "an integral part of the courses that our students attend".

The President, who was accompanied by alumni of IIT Kharagpur and Civil Aviation Minister Ajit Singh, took part in a function which also marks the culmination of the institutions Diamond Jubilee celebrations.

He strongly recommended "more collaborations, exchanges and cross-pollination of ideas with the best minds in India and abroad" and asked the IITs to take the lead in ensuring "continuous revitalisation of institutions through research, experimentation and innovation".

Times Of India ND 16/09/2012 P-23

London to Sydney in 2 hours...is it possible?

Technology enabling hypersonic flight could be closer than we think

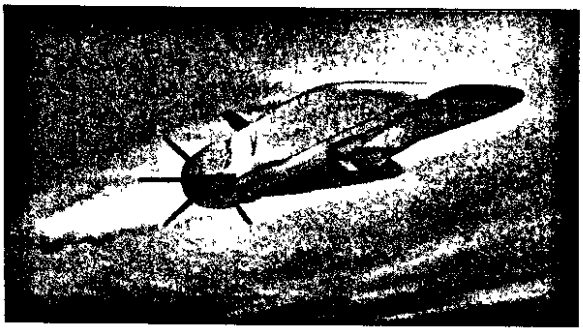
Mark Piesing

Last month, more than 70 years since the dream of sustained hypersonic flight was first born out of Nazi designs for a manned bomber with a global reach, the US Air Force's latest experimental hypersonic aircraft was lost during an attempt to maintain Mach 6 for merely five minutes. Hypersonic (high supersonic) speeds are those greater than Mach 5, or 3,500mph.

Despite the crash of the unmanned X-51A Waverider last month, scientists from across the world are in a series of experimental test flights racing to be the first to develop a propulsion system that will crack the secrets of sustained hypersonic flight. This is about more than flying from London to Sydney in four hours, as the headline writers would have it. This is about space.

"So hypersonic travel may be the dream, but aircraft-like space access is the prize," Ben Gallagher says. Gallagher is business development manager for Reaction Engines Ltd, whose revolutionary and privately financed Sabre and Skylon spaceplane are Britain's champions in the hypersonic race. "And we are not talking Concorde frequency and cost, we are talking Ryanair. That's why it is now attracting more resources," Gallagher says.

The challenge that today's engineers face is to develop a propulsion system and then an airframe that can



sustain these very fast speeds for the much longer period of time necessary to fly into space or cruise to Sydney. The key to flying at hypersonic speeds for any length of time is the ability of an engine to manage the exponential jumps in temperature for small increases in speed beyond Mach 5.

Traditionally, engineers have looked to the air-breathing scramjet as the propulsion system to deliver such

The challenge is to develop a propulsion system and airframe that can sustain these very fast speeds for a longer period of time

sustained hypersonic flight, as it can fly as fast as Mach 10 (London to Sydney in two hours). However, a major disadvantage of scramjets is that they can start to operate only at Mach 4 or 5, so any scramjet space-plane would need one, two or even three other propulsion systems to get them up to near Mach 4.

In contrast, the reusable Sabre engine can function as both a jet and a rocket engine. In its jet mode it can reach a speed of around Mach 5, sucking in oxygen from the atmosphere and using very lightweight pre-cooler heat exchangers to cool the air before it enters the engine, thus avoiding the problem of overheating. The same engine then switches into rocket mode when it enters space.

"Twenty years ago we were real voices in the wilderness and now we are being taken seriously," says Richard Varvill, chief designer of Reaction Engines, whose revolutionary hypersonic engines are now being taken seriously. THE INDEPENDENT

Dainik Bhaskar ND 16/09/2012 P-1

स्टोरी, एक सामान्य शिक्षक के असाधारण ई-टीचर बनने की

पर्सनालिटी

ये हैं 32 साल के अनिल सोनुने। कंप्यूटर की कोई डिग्री नहीं है। जानिए, फिर क्यों आईआईटी से लेकर माइक्रोसॉफ्ट तक उनका लोहा मान रहे हैं।

आशीष देशमुख, औरंगाबाद (महाराष्ट्र)

खेतों के बीच गाय-भैंस के तबेले के नजदीक बना कक्षा चार तक का सरकारी स्कूल। दो शिक्षक, 100 छात्र। लेकिन पढ़ाई कंप्यूटर और प्रोजेक्टर के जरिए होती है। यह काम कर दिखाया है यहां के टीचर अनिल सोनुने ने। उन्होंने अपनी मेहनत और अपने ही पैसों से टीन की छत के नीचे बने कमरे को डिजिटल क्लासरूम में बदल दिया है।

बत्तीस साल के अनिल को माइक्रोसॉफ्ट ने इस साल के इनोवेटिव टीचर अवॉर्ड से नवाजा है। स्लोवाकिया के प्राग शहर में 21 दिसंबर को उन्हें सम्मानित किया जाएगा। वहीं आकाश टेबलेट डेवलप करने वाली आईआईटी मुंबई ने उनसे इसके लिए मराठी में कंटेंट बनाने को कहा है। उन्होंने पढ़ाने के लिए अपनी वेबसाइट बनाई है और खुद कंटेंट जुटाते हैं।

मजे की बात है कि अनिल ग्रेजुएट भी नहीं हैं। न ही उन्होंने कंप्यूटर में कोई कोर्स किया है। उन्होंने एजुकेशन में डिप्लोमा (डीएड) करने के बाद 2000 में महाराष्ट्र के जालना जिले में निमखेड़ा कस्बे के इस स्कूल में नौकरी शुरू की थी। तब उनकी तनख्वाह केवल 7 हजार रुपए थी। लेकिन कक्षा पांच में अंबाजी के नवोदय विद्यालय में पढ़ते समय पैदा हुए कंप्यूटर प्रेम के कारण, नौकरी मिलते ही उन्होंने 40 हजार कीमत का एक डेस्कटॉप कंप्यूटर खरीदा। इसके लिए उन्हें कर्ज लेना पड़ा। लेकिन तभी उनके दिमाग में कंप्यूटर के जरिए पढ़ाई को दिलचस्प बनाने का ख्याल घर कर गया था।

लेकिन इस कंप्यूटर को वे क्लास में नहीं ले जा पाते थे। इसलिए चार साल बाद उन्होंने 42 हजार रुपए में एक लैपटॉप खरीदा। इसके लिए फिर लोन लिया। अब वे बच्चों को तरह-तरह के चित्रों और लघु फिल्मों के जरिए पढ़ाने तो लगे लेकिन भाषा एक बाधा थी। बच्चे मराठीभाषी थे और अधिकतर कंटेंट अंग्रेजी में। उन्होंने इंटरनेट से माइक्रोसॉफ्ट फ्लैश ट्यूटोरियल जैसे कुछ सॉफ्टवेयर डाउनलोड कर मराठी में कंटेंट तैयार करना शुरू किया। इस प्रोजेक्ट को नाम दिया क्लासमेट। सोनुने ने 2009 में 'बालजगत' वेबसाइट बनाई। इस पर गणित, मराठी और अंग्रेजी के पाठ अपलोड किए। इस वेबसाइट को 89 देशों से लगभग 6 लाख हिट्स मिलीं। फिर उन्होंने 'बालजगत डॉट कॉम' डोमेन खरीद लिया। देश विदेशो से मिले पुरस्कार माइक्रोसॉफ्ट की ओर से 2010 में साउथ अफ्रीका के केप टाउन मु दनिया भर के 550 प्राथमिक शिक्षकों की कॉन्फ्रेंस में सोनुने का डिजिटल क्लासरुम सराहा गया। कंप्यूटर पत्रिका चिप द्वारा आयोजित ऑनलाईन प्रतियोगिता उन्होंने प्रथम पुरस्कार जीता। यहां से मिले प्रोजेक्टर को उन्होंने अपने लैपटॉप के साथ जोड़ स्कूल में डिजिटल क्लासरूम बना दिया।

शेष | पेज 6 पर

सोनुने के बनाए पाठ प्रोजेक्टर पर आते हैं तो बच्चों की भी दिलचस्पी बढ़ जाती है।

स्टोरी, एक...

सोनुने कहते हैं - सरकारी स्कूलों में खानापूर्ति करने के लिए आनेवाले शिक्षक और उनके अध्यापन के तरीको से छात्र उब जाते हैं। इसी कारण वे स्कूल से दूर भागते हैं। डिजिटल क्लासमेट छात्रों को आकर्षित करता है। हमारे यहां इतिहास, भूगोल, विज्ञान, गणित, भाषा जैसे सभी विषयों की पढ़ाई इसी के जरिए होती है। छात्रों को इसी डिजिटल बोर्ड पर पढ़ना लिखना सिखाया जाता है, विज्ञान के सूत्र और गणित समझाए जाते है। चित्रों के माध्यम से इतिहास में सफर कराई जाती है। एनिमेशन के जरिए कविताएं पढ़ाई जाती है। आईआईटी मुंबई के प्रोफेसर समीर सहस्रबुद्धे से सोनुने मेल पर मिले। सहस्रबुद्धे अपने सहयोगी डॉ. पीपी पाठक के साथ उनका डिजिटल क्लासरुम देखने निमखेड़ा आए। उन्होनें इस क्लासमेट को आईआईटी के प्रोजेक्ट में रोल मॉडेल के रूपमें दर्ज किया है। साथ ही आकाश टैबलेट पर बगों के लिए इंटरेस्टिंग कंटेंट जुटाने का जिम्मा भी उन्हें सौंपा। सोनुने कहते हैं - मैं हर छात्र के हाथ में टैबलेट देना चाहता हूं। टैबलेट से गेम्स हटा कर हम उसे स्टडी मटेरिअल से अपडेट करेंगे। इससे छात्रों को भारी बस्ते ढोने नहीं पडेंगे। स्कूल के सभी टैब्लेट एक सर्वर से जुडे होंगे। किसी भी बगो को पढ़ने में आ रही मुश्किलों को टीचर आसानी से समझ सकेंगे।

क्या है क्लासमेट : कंप्यूटर को प्रोजेक्टर और स्पीकर से जोड़ कर बना है डिजिटल क्लासरूम। इसमें सीडी ड्राइव, पेन ड्राइव भी कनेक्ट कर सकते हैं। यह बोर्ड टचस्क्रीन है। इसे डिजिटल पेन (लेजर सेंसर) या वायरलेस की-बोर्ड से भी ऑपरेट कर सकते है। इसमें एक साथ 16 माउस कनेक्ट कर सकते हैं। खास बात है कि, इस क्लासमेट को छोटे से बैग में रखकर कहीं भी ले जाया जा सकता है।

HT, Mumbai

The Bombay high court has ruled that the year-long ban on gutkha will stand

MUMBAI: The Indian Institute of Technology, Bombay has accepted the transport department's request for developing a tamper-proof electronic meter. The project, expected to be developed in a few months, will help commuters from paying rigged fares on autorickshaw and taxi rides.

With cases of e-meter tampering being reported a few months ago, the transport department had sought IITBombay's help to develop a basic hardware and software, which could be replicated to make all e-meters tamper-proof. The institute has started working on the project.

"IIT-Bombay has accepted our request to develop a tamper resistat software and hardware for e-meters. The electrical engineering department has started working on the project," confirmed a senior transport official. He added that the department officials have discussed with the IIT-B administration about the problems they are facing at present.

Once IIT develops the hardware and software, it would be incorporated in the rules and regulations as specification for e-meters and all e-meter manufactures will have to develop its product as per those specifications.

"We have asked IIT-Bombay to develop a checking mechanism as well to see that the existing meters are not tampered with," said another transport department official.

HT, Chandigarh

IIT-K ALUMNI TO FORM CHANDIGARH CHAPTER

CHANDIGARH: The alumni of Indian Institute of Technology, Kanpur (IIT-K), settled in Chandigarh, Haryana and Punjab, on Sunday announced the formation of a Chandigarh chapter. Former Haryana chief secretary Dharam Vir, who too is an IIT-K alumnus, chaired the meeting and said in a press note that they had decided to register the Chandigarh chapter as a not-for-profit society under the Societies Registration Act, 1860.

This is the first ever attempt by the alumni of any IIT to from a local chapter at Chandigarh. The area of jurisdiction would be Haryana, Punjab, Himachal Pradesh, Jammu and Kashmir, Uttrakhand and Chandigarh.

Dharam Vir said more than 1,000 students of these states had graduated from the institute and several IIT-K alumnus of other states were living in Haryana, Punjab and Chandigarh.

"All such alumni would be eligible to join the chapter. The students of these states presently studying in the institute would be entitled to join the chapter as associate member and become regular member soon after their graduation," he said. **HTC**

September 17

Political & Business Daily ND 17/09/2012 P-8

Editorial

A red card

QS report is an eye-opener

THE just-released report of the QS World University Rankings for 2012 should serve as a red card for HRD Minister Kapil Sibal and all those concerned with the state of higher education in the country. Not a single Indian university or even "institute of excellence" has made it to the top 200 of the Quacquarelli Symonds rankings released in London on Tuesday. The QS rankings rate the world's top 400 universities evaluating each institution's strengths in research, teaching, employability of its graduates and international outlook. UK universities have taken four of the six top slots the 'league table' while US's Massachusetts Institute of Technology (MIT) has dethroned UK's Cambridge to emerge as the world's top university. But what should be a matter of serious concern back home is that India remains the only BRICS nation without a university in the top 200. Although IIT-Delhi and IIT-Kanpur have improved their rankings this year, the comparison with other BRICS nations remains unflattering. Of course, the discipline-wise rankings present a slightly better picture with IITs ranking among the top 50 engineering institutes and Delhi University too finding a place in the top 50 universities offering English Literature and Linguistics among others. But that should be of little solace considering the fact that while from within Asia, University of Hong Kong and National University of Singapore can bag respectable rankings like 23 and 25 and China has seven institutes in the top 200 list, a country of the size of India draws a pathetic blank.

While some within the country may blame the methodology behind the rankings or socio-cultural differences for India's poor performance, there is no denying the fact that apart from increased investment, a lot many things need to be done to improve the standards of higher education in the country. A majority of state-run universities saddled with high intake of students and poor fee structure are on the verge of decay with age-old curriculum, tottering infrastfucture, lack of modern teaching methodologies and zero research facilities. Among the private universities, which are essentially required to fill the huge gap created by recognised universities, most of them have reduced themselves to commercial ventures charging exorbitant fee but paying little regard to academic standards and quality faculty. In the absence of a proper regulatory mechanism, these 'teaching shops' have mushroomed unfettered with the sole aim of fleecing gullible students and parents. An ambitious, but highly relevant, proposal to invite foreign universities or to set up innovative universities in the country has come a cropper with the Foreign Universities Bill gathering dust in Parliament for over three years now. One only hopes the QS report on university rankings, which follows the ASER report that showed abysmal learning levels of students in primary schools and PISA report that equated our secondary schools with those in Kyrgyzstan, will goad the Government into taking some drastic measures to improve the overall standard of education in the country.

Hindu ND 17/09/2012 P-9

Don't blame it on the professor

Unemployment, skyrocketing prices and other governance-related problems are not the failures of the Indian higher education system

Happymon Jacob

This is in response to Justice Markandey Katju's article that appeared in *The Hindu* on September 3, 2012, entitled "Professor, teach thyself." At the outset, let me say that a number of issues that he has raised in his article are justifiable criticisms of India's higher education system and hence deserve further discussion even if one were to ignore the highly condescending tone of the article. However, Justice Katju's arguments also suffer from several serious logical and substantive flaws.

He is critical of the fact that while a great amount of money is pumped into the higher education sector in India, money spent on primary education is negligible. It is the latter sector that needs resources, he argues, because the huge amounts of money spent on higher education in the country are "for the benefit of foreign countries." Even if one were to buy this highly skewed and factually incorrect argument, one is at a loss to understand how the "professors" are responsible for this state of affairs. Surely, it is not the university fraternity that makes decisions regarding budgetary allocation in this country. Just because the government's policies do not prioritise primary education, it does not follow that we stop funding the higher education sector; that is indeed a curious argument. Funding the country's primary education sector, which is indeed a priority, need not be at the cost of India's higher education sector.

The 'state-of-the-art' myth

On the one hand, he argues that the Indian university system should produce Nobel laureates and "Fellows of the Royal Society," emulating the universities in advanced countries such as Australia. On the other, he also complains about the Rs.150 crore that is annually given to universities like Jawaharlal Nehru University (JNU). He also complains about the "state-of-the-art" campuses and "air-conditioning" provided to institutions of higher education in India. Has Justice Katju ever made an effort to inquire about the facilities and infrastructure available in western universities?

Most universities in India still do not have access to the latest journals; and when we think of "state of the art facilities," we only have in mind clean toilets, and electricity to run our computers. The fact is that most Indian universities do not have the funds to air-condition lecture halls or provide air-conditioning even in the chambers of senior professors; that is certainly the case in JNU. I wonder if Justice Katju would be able to work out of a non-air-conditioned office and lecture in furnace-like lecture halls for hours together in Delhi's sweltering heat!

"Debate" @ THE HINDU

The 'highly paid' myth

Justice Katju writes that the professors are given "huge salaries and fine houses to live in." This is yet another factually incorrect argument. If he wishes to understand how much professors get paid for their work, he should compare their salaries with the salaries of those holding equivalent ranks in the government or the judiciary. While I tend to agree with the spirit of this argument that a large number of academics do not engage in high-quality research and that their publications are "mostly poor," I wish to point out that there are several structural reasons why academic research in India may not be policy relevant. Those of us who teach/research international relations or India's foreign and defence policy, for instance, are aware that the government's unwillingness to declassify and open its archival records on defence, security and foreign policy matters to public access even after 30 years of a particular policy decision is one of the major reasons why it is almost impossible to produce authoritative academic assessments in these fields. When we do write, policymakers would discard it saying it is inaccurate and speculative, and they are not entirely wrong in saying so. However, if a considerable amount of academic writing in India on foreign policy and national security is widely considered to be based on guesswork, please don't put the blame entirely on the professors. The government's archaic secrecy laws have to take part of the blame.

The objective of higher education

I also fail to understand how IIT and IIM professors are to be blamed if their students get employment abroad and prefer to leave India. If anything, the very fact that IIT and IIM products are chased after by the international business houses proves that their professors are actually doing a fine job of giving them world-class education. Moreover, it is patently misleading to suggest that the government should stop funding higher education because of the brain drain from the country.

Finally, there is a larger substantive question that Justice Katju's article raises. He asks whether the higher education system in India has managed to raise the standard of living of the poor Indian masses who are struggling with massive unemployment, skyrocketing prices, huge problems of health care, housing etc. I have fundamental issues with this line of argument. First of all, massive unemployment, skyrocketing prices and such other governance-related problems are not the failures of the Indian higher education system: these are systemic failures and pinning that on the Indian higher education system is grossly unfair. Second, the primary job of the universities is to teach students and guide their research, not to tell the government how to run the country. Third, even when the universities produce research-based studies on ways of improving various aspects of governance in the country, the government hardly ever takes notice of the research outputs of universities. If the *babus* don't listen to the professors, why blame the professors? Finally, Justice Katju's "instrumental" understanding of education is deeply problematic. He seems to argue that the sole objective of higher education is to help the governance of the country. Going by that argument, any intellectual or academic pursuit that has no direct instrumental value for governing the country is a useless enterprise. Hence, the production, accumulation and transfer of knowledge on philosophy, ancient history, African tribal societies, Victorian drama and aesthetics have to be considered as a waste of time since they don't contribute to solving governance problems in India!

(Happymon Jacob teaches at Jawaharlal Nehru University, New Delhi).

Hindu ND 17/09/2012 P-11

Accreditation to be made mandatory for all varsities, colleges: UGC

Nagesh Prabhu

BANGALORE: To enhance the quality of higher education, the University Grants Commission (UGC) has decided to make accreditation mandatory for all universities and colleges coming under its purview.

All universities, institutions of higher learning and colleges in the country in future have to obtain accreditation certificates from National Assessment and Accreditation Council (NAAC), Bangalore, to get funds from the UGC for various academic and research programmes.

Speaking to *The Hindu* on the sidelines of the 5th NAAC accreditation award ceremony here on Sunday, UGC Chairman (acting) Ved Prakash said: "An order will be issued soon to make accreditation mandatory for all universities and colleges come under the UGC."

"The rule to make accreditation mandatory will be soon vetted by the Human Resource Development Ministry," he said.

"The accreditation helps an institution to identify its strengths, weaknesses, challenges and opportunities." All educational institutions coming under UGC must obtain accreditation once in three years, he said.

The UGC has already made it mandatory for all institutions to submit accreditation certificate of the NAAC with a minimum 'B' grade to get funds under the "Colleges with Potential Excellence" scheme. Otherwise, "the college has to refund the entire amount along with penal interest of 10 per cent to the UGC," NAAC officials said.

Jawaharlal Nehru University Vice-Chancellor Sudhir K. Sopory received accreditation certificate from Prof. Prakash and NAAC Director H.A. Ranganath.

JNU received cumulative credit point average of 3.91 and bagged 'A' grade certificate (Very Good) from NAAC.

Institutions such as *Delhi University*, Delhi, and the National Law School of Indian University and Indian Institute of Science (both Bangalore), have not yet applied for accreditation, officials said.

A committee headed by G. Padmanabhan, former Director, IISc, Bangalore, visited the JNU campus and evaluated the quality of education, facilities and infrastructure available, Prof. Sopory told *The Hindu*.

He said the committee spent a few days on the campus and inspected all centres in the university, which has strength of over 7,500 students.

Though there was an argument for and against accreditation, he said "the Academic Council of the University has decided to go in for accreditation."

"Though we do not care much about the ranking, we felt that it is good that somebody else reviews our academic performance," Prof. Sopory said.

Economic Times ND 17/09/2012 P-4

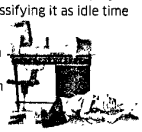
Smart Chip: New Tech Helps Cos Audit Staff's Time@Work

What's the tech?

- **The tech** allows managers to break down computer time every team member devoted to work and to personal activities. It also identifies the time the employee was away from the computer, classifying it as idle time

How does it measure?

- **The classification** shows up on an effort mining dashboard, with down-to-the-second classification of at-work usage



How does it help?

- **Sapience helped** in adding one extra work-hour per day per employee within first month of implementation, translating into a 10%-plus in productivity

OMKAR SAPRE
PUNE

Staying back at work may not mark you as a performer, a productivity audit tool developed by a Pune tech firm reveals. It actually boils down to your specific work, its nature and duration. Sapience Analytics' eponymous solution provides employees with a daily balance-sheet of time spent at office and that spent on work. While staff can perform self-audit to improve productivity, managers can proactively identify delays in project delivery.

Sapience works best where people work 'inside the computer' like information technology, technology-enabled services and engineering. The technology works in the background, audits the time used on various software allowing managers to split the computer time for each team member between work and personal activity. The break-up shows up in an effort-mining dashboard with down-to-the-second classification.

Says Sapience co-founder Shirish Deodhar: "We can turned time and effort into balance-sheet items. Given the right visibility into their work, most employees are keen to initiate self-improvement on their own," he says. By adding one extra hour per day per employee, Sapient has helped firms improve productivity by 10% or more. "Our employees will continue to improve their effectiveness and output if equipped with the right tools and processes," says Kishor Patil, CMD of KPIT Cummins which has implemented Sapience's solutions.

The software is installed both on the server and the workstations. It records work-related URLs and application use, and the data is collated for analysis. Applications installed on the user's computer will be linked to Sapience and the activities will be detailed according to her profile by the organisation. For instance, work taking place on development tools will be classified as coding work while use of Outlook will be treated as communication work. The profiling helps in segregating productive and non-productive work -- work on communication tool is productive for those in marketing. With the software being connected to Outlook, a meeting will be recorded against staff's name if it is slotted on Outlook and the comp is idle. If no meeting is slated on Outlook and the employee is called to a meeting, the software will throw a pop-up when he's back asking where he would like to classify the time.

Sapience comes from a team with solid experience in building software product firms that were bought out by MNCs. Shirish Deodhar headed Veritas Software after it acquired his company. Veritas was subsequently acquired by global security giant Symantec. Deodhar then co-founded In-Reality Software, which exited to Symphony Services, followed by Sapience Analytics.

The company, which had raised funds from a clutch of CEOs through the India Angel Network, sells its tech on an annual subscription model as also on an on-premise one-time sale model. Aiming to derive intellectual property revenues, the firm has filed a patent on system and method for measuring exact effort spent on work related activities within an organisation. It was filed June last year both in India and in the US.

Sapience says it is not an employee monitoring software like Cyclope or others. It is positioned as a productivity audit tool.

Hindu ND 17/09/2012 P-18

A special 'eye' up in the sky to constantly watch over the country

The satellite will be in geo-stationary orbit, always looking over the same region

Madhumathi D.S.

- **The sub-1,000-kg satellite will be put in space by a PSLV rocket**
- **Its camera can 'see' as small as a 60-metre area from its height of 36,000 km**

BANGALORE: Imagine an eye far up in the sky that is constantly trained on the country and alerts authorities 36,000 km below of trouble spots, natural disasters, floods and forest fires within, say, five minutes of the event. More importantly it will also keep a watch over our sensitive borders.

The design for one such special 'eye' — called the Geo-Imaging Satellite or GISAT — is taking shape at the Space Applications Centre, Ahmedabad. With a recent approval and Rs. 50-crore allocation this financial year for preliminary work, GISAT should be a reality in a couple of years. The sub-1,000-kg satellite will be put in space by a PSLV rocket.

Real time imagery

Previous remote-sensing satellites sent up by the Indian Space Research Organisation also do the same job. However, they go over from pole to pole at a distance of 600-900 km from the ground, view a particular area for barely ten minutes and do not visit the same place for the next one, three or five days. GISAT, on the other hand, will be fixed in a geostationary orbit, always looking over the same region and synchronised to the Earth's 24-hour rotation.

A 2012-13 Budget grants document for the Department of Space describes GISAT as a "multi-spectral, multi-resolution advanced remote sensing satellite." Its nearly real-time imagery can speed up authorities' response to calamities and troubles to almost immediately, Mr. Tapan Misra, Deputy Director at SAC's Microwave Remote Sensors Area, told *The Hindu*.

A marvel

Its electronically steerable camera can 'see' as small as a 60-metre area from its height of 36,000 km. It will be a marvel up there compared to what ISRO's low-flying Earth observation satellites can do with their fine resolutions of 2 m, 1m and even less than one metre, Mr. Misra, who was here for the ISRO-CII-sponsored conference, World Space Biz 2012, said.

"A single early-warning satellite, giving you constant, complete coverage of the country, is unique," according to Dr. V.Jayaraman, former Director at ISRO's Hyderabad-based National Remote Sensing Centre. And a world first, he said.

It will be equivalent to putting a Cartosat — another of ISRO's advanced 'eyes' but in the lower sky — at long distance.

It would complement the advanced meteorology and remote-sensing satellite, Insat-3D, due to be launched in December this year, said Dr. Jayaraman, who was earlier Director, Earth Observation, ISRO.

GISAT, Mr. Misra said, will be built on ISRO's technologies that went into Cartosat and Radar Imaging Satellite (RISAT-1) — "both of which were big technology leaps for the country."

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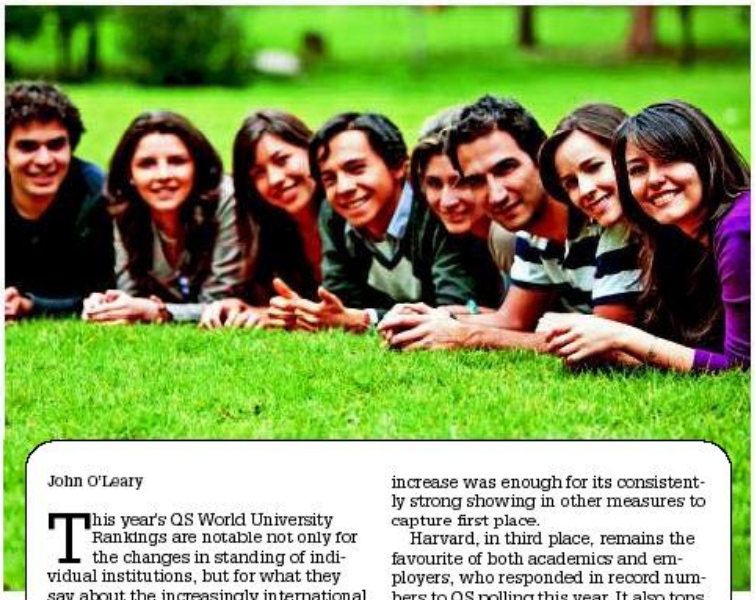
New-look rankings show the unstoppable rise of student mobility

MIT OVERTAKES CAMBRIDGE AND HARVARD, AS LEADING UNIVERSITIES REPORT A REMARKABLE SURGE IN INTERNATIONAL STUDENT NUMBERS



John O'Leary

This year's QS World University Rankings are notable not only for the changes in standing of individual institutions, but for what they say about the increasingly international nature of higher education at the top level.

Global student mobility is on a seemingly unstoppable rise, with those seeking an overseas education targeting the increase was enough for its consistently strong showing in other measures to capture first place.

Harvard, in third place, remains the favourite of both academics and employers, who responded in record numbers to QS polling this year. It also tops four of the five broad faculty rankings published today.

Overall, the institutional ranking is more stable than it has ever been. There is only one new entrant to the

seen a significant increase in international students, but has dropped five places in this measure, contributing to its fall from first to second place in the overall ranking.

The Massachusetts Institute of Technology (MIT) is the new leader, overtaking both Cambridge and Harvard to top the institutional table for the first time. The signs of MIT's rise were visible in the subject rankings published by QS in June, when it topped 11 of the 28 tables.

MIT has attracted attention over the past year mainly for its development of massively open online courses (MOOCs), which it pioneered. The MITx project has been launched to make more courses available globally and the university is one of the lead players in collaboration with other US and overseas institutions. Recent months have also seen the announcement that Susan Hockfield, the President, would be stepping down and the remarkably speedy appointment of Rafael Reif, the Provost, to succeed her.

MIT would have been higher in previous years were it not for a relatively low proportion of international faculty. A sharp rise in this measure is the biggest factor behind its rise to overtake both Harvard and Cambridge and take top place. Although it is still not in the top 100 for the proportion of foreign academics, the numbers as last year.

The UK is again the next most successful country, although it has lost one university from the top 20, one from the top 100 and one from the top 200. Its four universities in the top ten and 18 in the top 100 show a system continuing to punch well above its weight.

though four of the top six are from the UK this year. US institutions occupy the remaining six places in the top ten, plus 13 of the top 20 and 31 of the top 100 - the same

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Rank	2011 Rank	Institution	Country	Academic Reputation Score	Employer Reputation Score	Citations Per Faculty Score	Faculty Student Score	International Faculty Score	nternational Students Score	Overall Score
1	3	Massachusetts Institute of Technology (MIT)	United States	100	100	99.3	99.9	86.4	96.5	100
2	1	University of Cambridge	United Kingdom	100	100	97	98.3	98.2	96	99.8
3	2	Harvard University	United States	100	100	100	98.6	90	78.4	99.2
4	7	UCL (University College London)	United Kingdom	99.6	95.6	94	98.4	96.3	99.9	98.7
5	5	University of Oxford	United Kingdom	100	100	89.4	100	98	95.8	98.6
6	6	Imperial College London	United Kingdom	99.8	100	87.3	99.8	99.8	99.6	98.3
7	4	Yale University	United States	100	100	93.3	100	92.7	63.9	97.5
8	8	University of Chicago	United States	99.9	96	96.4	95.6	68.9	77.8	96.3
9	13	Princeton University	United States	100	88.5	99.8	90.7	85.5	63.5	95.4
10	12	California Institute of Technology (Caltech)	United States	99	51.3	100	100	96	91.1	95.1
11	10	Columbia University	United States	99.9	100	96.3	97.2	16.2	84.9	94.7
12	9	University of Pennsylvania	United States	98.5	96.2	92.4	99.6	55.7	66.8	94.5
13	18	ETH Zurich (Swiss Federal Institute of Technology)	Switzerland	99.3	94	97.2	67	100	98.7	92.8
14	15	Cornell University	United States	99.7	96.4	98.8	73.9	74.3	67.4	92.1
15	11	Stanford University	United States	100	100	100	72.4	41.9	83.5	91.7
16	16	Johns Hopkins University	United States	94.6	60.2	99.1	100	56.8	74.7	91.2
17	14	University of Michigan	United States	99.8	96.1	87.3	92	50.6	46.5	91.2
18	17	McGill University	Canada	98.5	95.1	69.1	89.6	86	91.3	90.4
19	23	University of Toronto	Canada	99.9	94.3	80.2	73.8	96.1	74.8	89.6
20	19	Duke University	United States	95.1	81.9	96.9	99.7	16.4	44.5	89.5
21	20	University of Edinburgh	United Kingdom	99.1	96.8	77.1	72.1	89.6	93.8	89.2
22	21	University of California, Berkeley (UCB)	United States	100	100	97.9	47	86.1	78.8	88.1
23	22	University of Hong Kong	Hong Kong	99.3	83.8	50.5	94.2	100	99.1	87.9
24	26	Australian National University	Australia	99.7	82.5	64.3	79.6	100	96.3	87.6
25	28	National University of Singapore (NUS)	Singapore	100	99.4	51.1	81.4	100	98.2	87.2
26	27	King?s College London (University of London)	United Kingdom	92.6	83.8	68.9	89.1	93.8	90.6	87.1
27	24	Northwestern University	United States	90.7	88.6	97.9	82.3	11.9	55.9	85.4
28	30	University of Bristol	United Kingdom	91	96	77.3	74.8	85.8	75.6	85.4
29	35	Ecole Polytechnique Fédérale de Lausanne	Switzerland	79.1	75.8	79.9	95.1	100	100	85.1
30	25	The University of Tokyo	Japan	100	97.6	73.1	89.3	11.1	25.8	85
31	34	University of California, Los Angeles (UCLA)	United States	100	96	99.5	62.3	1.6	34.4	84.6
32	29	The University of Manchester	United Kingdom	98.5	100	62.2	63.2	85.2	91.4	84.2
33	40	The Hong Kong University of Science and Technology	Hong Kong	92.5	79.7	54.7	83.9	100	98.9	83.5
34	33	École Normale Supérieure, Paris	France	90.8	66.9	81.6	92.4	26.2	66.2	83.3
35	32	Kyoto University	Japan	99.8	81.1	70	92.6	15.5	21.9	83.3
36	31	The University of Melbourne	Australia	99.8	100	74.9	46.8	68.9	92.3	83.2
37	42	Seoul National University	Korea, South	98.8	83.4	49.6	90.7	47.8	61	82.2
38	41	University of Wisconsin-Madison	United States	97.1	68.6	68	85.2	52.4	32.9	81.4
39	38	The University of Sydney	Australia	99.3	93.5	58.9	50.4	99.7	91.3	81.3
40	37	The Chinese University of Hong Kong	Hong Kong	93.5	72.4	48.7	79.8	95.7	83.1	80.1
41	36	Ecole Polytechnique	France	73.3	95.9	57.9	100	72.4	92.6	79.6
42	39	Brown University	United States	81.5	68.8	97.8	76.7	32	54.7	79.5
43	44	New York University (NYU)	United States	97.7	85.3	40.2	92.7	23.2	55.7	78.9
44	46	Peking University	China	99.7	96.6	36.8	82.6	55.7	35	78.8
45	51	University of British Columbia	Canada	99.1	77.8	92.1	25.9	61.4	73.2	78.6
46	48	The University of Queensland	Australia	95.3	83.3	63.1	45.3	95.5	90.5	78.2
47	58	Nanyang Technological University (NTU)	Singapore	90.4	94.5	26.7	85.3	100	97.9	77.7
48	47	Tsinghua University	China	98.8	97.6	32	86	50.6	26.3	77.5
49	43	Carnegie Mellon University	United States	86	81	86.5	55.4	17.7	97.1	77.4
50	45	Osaka University	Japan	91.4	69.6	62.1	91.7	15.4	20.3	76.8
51	52	University of Copenhagen	Denmark	83.5	71.5	48.6	99.8	71.8	41.3	76.7
52	49	The University of New South Wales	Australia	95	95.1	52.8	39.8	98.8	97.6	76.6
53	54	Technische Universität München	Germany	86.4	91	34.3	97.9	48.1	63	76.4
54	59	University of Glasgow	United Kingdom	82.4	70.7	78.3	60.3	78.5	76.7	76.3
55	53	Ruprecht-Karls-Universität Heidelberg	Germany	93.3	42.8	49.7	86.5	52.6	65.2	75.5
56	61	University of Illinois at Urbana-Champaign	United States	97.7	66.7	90	23.5	56.2	68.8	75.5
57	55	University of North Carolina, Chapel Hill	United States	80.9	63.2	90.7	75.8	30.1	22.2	75.4
58	50	The University of Warwick	United Kingdom	89.4	100	37.5	52.3	90.3	98	73.9
59	56	University of Washington	United States	93.6	47.4	99.5	46.9	8.8	21	73.7
60	62	Ludwig-Maximilians-Universität München	Germany	97	71.9	75.6	33.6	35.7	50	72.9
61	60	Monash University	Australia	95.4	96.5	41.6	33.6	77	94.5	72.2
62	63	University of Amsterdam	Netherlands	89.8	74.6	75.7	43.4	54.4	28.8	72.1
63	90	KAIST - Korea Advanced Institute of Science & Technology	Korea, South	85.1	51.7	54	90	36.6	24.1	71.8
64	70=	Boston University	United States	72.5	77	74.8	73.2	29.4	63.2	71.7
65	57	Tokyo Institute of Technology	Japan	76.1	74.5	70.8	79.8	14.3	38	71.4
66	72	The University of Sheffield	United Kingdom	77.7	75.3	60.2	58.8	79.6	84.5	71.3
67	65	Trinity College Dublin	Ireland	79.6	75	57	54.1	99.1	80.4	71.3
68	76	University of Texas at Austin	United States	97.4	81	74.7	21.1	58.3	27.4	71.2
69	64	London School of Economics and Political Science (LSE)	United Kingdom	88	100	17.4	58.6	100	100	71.1
70	77	University of California, San Diego (UCSD)	United States	97.5	35.7	100	31.7	3	23.1	70.9
71	86	Lund University	Sweden	84.7	82.2	76.6	41.9	33.3	53.7	70.9
72	74	The University of Nottingham	United Kingdom	76.6	96.2	51.1	55.2	85.3	83.5	70.7
73	75	University of Southampton	United Kingdom	73.3	69.8	65.9	60	88.2	81	70.7

74	69	University of Geneva	Switzerland	65.7	23.7	97.5	58.9	100	99.2	70.6
75=	88	Leiden University	Netherlands	83.8	47.2	98.3	33.3	80.4	24.1	70.5
75=	70=	Tohoku University	Japan	76.4	66	54.4	96.8	22.3	25.3	70.5
77	67	University of Birmingham	United Kingdom	77.3	80.5	64.5	50.1	82.6	70.6	70.3
78	89	University of Helsinki	Finland	80.9	43.2	62.1	86.2	46.2	14.2	70.1
79	73	The University of Western Australia	Australia	77.8	70.9	70.1	39.9	99.3	81.7	70
80	87	National Taiwan University (NTU)	Taiwan	97.3	70.3	69.7	38	19.4	15.1	69.9
81	83	Uppsala University	Sweden	84.3	51.5	85	42.7	52.7	39.9	69.8
82	68	KU Leuven	Belgium	88.5	70.1	81.7	22.7	71	43.5	69.7
83	82	The University of Auckland	New Zealand	92.8	78.2	45.5	27	91.1	91.8	69.3
84	78	Washington University in St. Louis	United States	60.4	22	96.8	99.7	3.6	51.9	69.1
85	80=	Utrecht University	Netherlands	81.4	48.4	88.2	45.8	56.1	18.9	68.7
86	80=	Nagoya University	Japan	69.5	64.2	68.6	88	17.7	29	68.6
87	66	Freie Universität Berlin	Germany	91	44.6	80.7	29.4	43.7	56	68.6
88	84	Georgia Institute of Technology	United States	70.7	76.9	99.4	19.3	73.7	85.9	68.4
89	79	Aarhus University	Denmark	70.5	48.6	72.5	69.9	66.5	56	68.4
90=	91	Fudan University	China	92.5	84.8	51.4	42.4	18	49.8	68.3
90=	106	University of Zurich	Switzerland	76.6	47.7	68.9	53.8	100	53.6	68.3
92	95	Durham University	United Kingdom	71.1	96.8	60	45	91	70.4	67.9
93	97	University of St Andrews	United Kingdom	64.7	69.2	61.1	60.9	95.3	99.8	67.6
94	93	University of Leeds	United Kingdom	81.2	78.9	46.6	46.9	77	73.2	67.3
95=	110	City University of Hong Kong	Hong Kong	73.2	42.8	45.3	72.6	100	81.2	66.9
95=	85	Purdue University	United States	75.8	83.2	60.9	34.6	95	74.2	66.9
97	98	Pohang University of Science And Technology (POSTECH)	Korea, South	57.5	37.4	77.4	99.2	67.7	13.4	66.8
98	116	University of Pittsburgh	United States	53.4	26.3	87.8	93.3	68.6	36.4	66.1
99	103	Erasmus University Rotterdam	Netherlands	50.5	82.2	93.6	58.9	69.7	56	65.9
100	101	University of California, Davis	United States	74.6	38	96.7	35.4	60	42.5	65.9
101	94	Pennsylvania State University	United States	77.3	83.3	81.5	33.8	17.1	37.3	65.7
102	92	The University of Adelaide	Australia	73.8	69.5	54.8	41	86.9	92.6	65.3
103	104	Delft University of Technology	Netherlands	74.8	72.3	55.7	39.6	89.9	75.4	65.1
104	102	University of Minnesota	United States	82.9	41.8	97.5	29.9	7.2	20.5	64.9
105	111	Ohio State University	United States	73.7	66.9	74.4	35.1	78.6	39.9	64.7
106	105	Universität Freiburg	Germany	72.3	21.6	64.1	72.4	60	48.1	64.4
107	109	Maastricht University	Netherlands	39.1	69.5	79.2	78.5	91.8	99.9	64.4
108	100	University of Alberta	Canada	71.6	46.6	52.8	58.1	90.8	71	64.2
109	115	University of Groningen	Netherlands	62.4	43.2	56.6	72.4	89.9	79.1	64.2
110	96	University of York	United Kingdom	69.2	69.5	52.2	48.7	84.5	81.4	63.8
111	108	University of Oslo	Norway	69.9	38.1	62.6	73.6	30	51.4	63.7
112	129	Yonsei University	Korea, South	80	65.3	25.5	83.7	12.6	38	63.5
113	99	Dartmouth College	United States	41.3	67.3	97.3	85.6	10.6	49.8	63.5
114	137	Université de Montréal	Canada	69.3	37.9	76.2	38.5	83.4	84.1	63.5
115	136	University of Lausanne	Switzerland	48	26.8	90	64.3	92.4	87.2	62.4
116	112	Lomonosov Moscow State University	Russia	77.1	71.6	5.3	100	6	36.1	61.8
117	113	University of Maryland, College Park	United States	66.4	39.5	73.4	60.9	37.7	31.7	61.5
118	118	University of California, Santa Barbara (UCSB)	United States	76.6	27.2	99.8	14.5	60.9	29.1	61.3
119	149	Georg-August-Universität Göttingen	Germany	70.6	27.3	48.6	77.9	42.4	37.6	60.9
120	117	Rice University	United States	46.5	26.3	93.1	71.5	48.3	71.6	60.8
121	151	University of Basel	Switzerland	51.6	31.2	60.2	75	100	82.5	60.5
122	114	Emory University	United States	38.7	40.4	98.8	86.8	18.1	45.7	60.4
123	126	University of Virginia	United States	52.4	70.7	75.3	66.2	29.3	39.9	60.4
124	123	University of Liverpool	United Kingdom	54.8	66.6	55	60.6	80.9	73.4	60
125	124	Shanghai Jiao Tong University	China	80	82.3	43.3	42.4	20.6	17.5	59.9
126	127	Newcastle University	United Kingdom	45.8	73.8	62.1	61.8	82.3	90.5	59.7
127	125	Université Catholique de Louvain (UCL)	Belgium	70.4	55.8	60.9	30.1	74.2	67.8	59.7
128	122	Kyushu University	Japan	59.8	67.3	34.6	97.7	15.3	22.3	59.6
129	119	Université Pierre et Marie Curie (UPMC)	France	63.6	27.7	70.2	58.7	32.8	67	59.6
130	132	Humboldt-Universität zu Berlin	Germany	94.3	37.1	34.2	29.2	46.4	47.1	59.4
131	134	University College Dublin	Ireland	59.8	68.6	38.5	53.1	92.4	94.6	59.1
132	150	Technical University of Denmark	Denmark	38.6	36.3	57.9	97.3	93.1	73.4	59
133	130	University of Otago	New Zealand	65.8	60.2	54	31	100	79.8	58.9
134	107	University of Southern California	United States	59.2	45.5	62.9	64	20.4	71.4	58.8
135	128	University of Rochester	United States	40.1	12.5	73.7	100	43.1	78.5	58.7
136	138	Radboud University Nijmegen	Netherlands	41.2	39.8	76.9	84.9	68.5	33.6	58.5
137	190	Korea University	Korea, South	76.4	57.4	22.3	70.4	23.8	34.7	58.4
138	139	Hokkaido University	Japan	56.6	64.7	54.7	80.3	13.9	18.1	58.3
139	169=	Universidade de São Paulo	Brazil	86.8	76.2	33.6	37.9	11.3	5.3	58.1
140	120	Hebrew University of Jerusalem	Israel	60.9	25	67.6	76.2	26.2	9.6	58
141	147	Karlsruher Institut für Technologie (KIT)	Germany	55.4	76.5	25.6	83.1	55.8	58.6	57.9
142	180	KTH, Royal Institute of Technology	Sweden	55.3	63.5	38.1	63.7	74.4	91	57.7