

Newspaper Clips July 22, 2014

IIT-Kharagpur emerges on top in ranking

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<http://www.dnaindia.com/india/report-iit-kharagpur-emerges-on-top-in-ranking-2004098>



IIT, Kharagpur, has emerged as the top engineering college in EDU-RAND ranking 2014 followed by IITs in Delhi and Kanpur. IITs in Chennai and Mumbai have occupied the fourth and fifth places respectively in the ranking. The EDU-RAND ranking is intended to guide students seeking admission to an engineering college or university, according to a press release.

While EDU is a community platform for academics, administrators and business leaders in Indian higher education, RAND Corporation is a global research house known for its extensive work in education. India is host to more than 3,000 engineering colleges including (private and public institutions) while EDU and RAND have limited this year's rankings to 850 colleges that were established before and in 2009.

Hindustan ND 22/07/2014 P-6

आईआईटी दिल्ली दूसरे पायदान पर

नई दिल्ली। साल 2014 की एडु-रैंड रैंकिंग में भारतीय प्रौद्योगिकी संस्थान (आईआईटी) खड़गपुर शीर्ष इंजीनियरिंग कॉलेज के तौर पर उभरा है। आईआईटी दिल्ली दूसरे पायदान पर है जबकि आईआईटी कानपुर को तीसरा स्थान प्राप्त हुआ है। इस रैंकिंग में आईआईटी चेन्नई को चौथे और आईआईटी मुंबई को पांचवें स्थान पर रखा गया है। एक विज्ञप्ति के मुताबिक, एडु-रैंड रैंकिंग का मकसद इंजीनियरिंग कॉलेज या यूनिवर्सिटी में दाखिला चाहने वाले छात्रों का मार्गदर्शन करना है। एडु शिक्षाविदों, प्रशासकों एवं भारतीय उच्च शिक्षा क्षेत्र की कारोबारी शख्सियतों का एक सामुदायिक मंच है।

Millenium Post ND 22/07/2014
P-8

IIT-KHARAGPUR EMERGES ON TOP IN RANKING

NEW DELHI: IIT, Kharagpur, has emerged as the top engineering college in EDU-RAND ranking 2014 followed by IITs in Delhi and Kanpur. IITs in Chennai and Mumbai have occupied the fourth and fifth places respectively in the ranking. The EDU-RAND ranking is intended to guide students seeking admission to an engineering college or university, according to a release.

Tribune ND 22/07/2014
P-10

36% teaching slots vacant in 16 IITs

NEW DELHI, JULY 21

The Central Government on Monday said 36.5% and 40.8% of teaching positions were vacant in the country's 16 IITs and 30 NITs, respectively.

"There are 36.5% and 40.8% vacancy in teaching positions in 16 IITs (Indian Institutes of Technology) and 30 NITs (National Institutes of Technology), respectively," Human Resource Development Minister Smriti Irani said.

"The reasons for faculty shortage are due to retirement, resignation, increase in students' intake and non-availability of qualified candidates for taking up teaching assignments," the minister said in a written reply in the Rajya Sabha.

She said the institutes had been taking various initiatives to "attract outstanding candidates for faculty positions". She said NITs were engaging contract and adjunct staff and using the online mode of teaching to overcome these shortages. — IANS

Millenium Post ND 22/07/2014 P-5

36% of teaching slots in IITs lying vacant, says Irani

NEW DELHI: Giving details about vacancy in teaching position in 16 IITs and 30 NITs, the minister said that there are approximately 36.5 per cent and 40.8 per cent vacancy in teaching positions in these institutes. The reasons for faculty shortage are due to retirement, resignation, increase in students' intake and non-availability of qualified candidates for taking up teaching assignments.

The Institutes have been taking

various initiatives to attract outstanding candidates for faculty positions. Some of these measures include year-round open advertisements, holding of selection committee meetings through video conferencing, invitation to alumni, scientists and faculty to reach out to potential candidates, advertisements in international journals, outstanding young faculty awards, etc.

As regards NITs, the Institutions are engaging contract and adjunct

staff as well as using the online mode of teaching to overcome these shortages. Moreover, faculty in NITs has now been given pay parity with faculty in IITs with a view to attract quality faculty.

Further, the MHA has reduced the salary limit for employment Visa to foreign faculty from US\$ 25,000 to US\$ 14,000 with a view to make it possible for foreign faculty to join IITs and NITs.

Economic Times ND 22/07/2014 P-8

IIT जोधपुर में फैकल्टी को 25 लाख की शुरुआती सैलरी

[एजेंसी | जोधपुर]

IIT जोधपुर नई फैकल्टी को 25 लाख रुपये सालाना का शुरुआती वेतन देगा। बोर्ड ऑफ गवर्नर के चेयरमैन गोवर्द्धन मेहता ने कहा कि IIT जोधपुर के लिए फैकल्टी को आकर्षित करने के लिए यह निर्णय लिया गया है। यह सैलरी पैकेज अन्य इंस्टीट्यूट के मुकाबले काफी ज्यादा है। हालांकि, चेयरमैन ने 25 लाख के पैकेज में और क्या होगा, उसकी डिटेल्स देने से मना कर दिया। IIT जोधपुर में फिलहाल 40 शिक्षकों की कमी है। यहां कुल शिक्षकों के पद संख्या 90 हैं, लेकिन अभी सिर्फ 50 फैकल्टी ही यहां है। पिछले दो वर्षों में लगभग दो दर्जन फैकल्टी यहां से जा चुकी है। IIT जोधपुर में एक भी फैकल्टी प्रोफेसर रैंक का नहीं है। मेहता ने स्वीकार किया कि संस्थान से बड़ी संख्या में शिक्षकों ने नौकरी छोड़ी है, जिसकी कई वजहें हैं। मेहता ने कहा कि संस्थान के स्तर से बिना समझौता किए हम खाली पदों पर भरने की कोशिश कर रहे हैं।

IIT के डायरेक्टर सी वी आर मूर्ति ने कहा कि IIT जोधपुर को जल्द प्रोफेसरों, एसोसिएट प्रोफेसरों और कंप्यूटर साइंस एंड इंजीनियरिंग, इलेक्ट्रिक इंजीनियरिंग और मेकेनिकल इंजीनियरिंग में असिस्टेंट प्रोफेसरों की जरूरत है। मेहता ने यह भी कहा कि IIT जोधपुर अब खुद की बिल्डिंग (कैंपस) बनाएगा। अगले कुछ हफ्तों में इसके लिए टेंडर भी निकाल दिया जाएगा। मेहता ने कहा कि काम के पहले फेज की शुरुआत अक्टूबर के पहले हफ्ते में होने की उम्मीद है। कैंपस का कंस्ट्रक्शन पांच फेज में पूरा किया जाएगा। पहले फेज की लागत 350 करोड़ आएगी। इस फेज को 18 महीनों में पूरा करने का लक्ष्य रखा गया है। मेहता के मुताबिक, हम चाहते हैं कि 2016 का एकेडमिक सेशन हमारे खुद के कैंपस में शुरू हो। अभी IIT जोधपुर, MBM इंजीनियरिंग कॉलेज ऑफ जोधपुर की किराए की बिल्डिंग पर चलाया जा रहा है। IIT जोधपुर के खुद के कैंपस की शुरुआत का फैसला पिछले साल 16 अप्रैल को एचआरडी मिनिस्टर एम एम पल्लम राजू ने किया था।

Rajasthan Patrika ND 22/07/2014 P-11

आकर्षण ♦ 19 राज्यों में महाराष्ट्र के 33, राजस्थान के 24 विद्यार्थी शामिल

गुजरातियों को पसंद आने लगी आईआईटी-गांधीनगर

अहमदाबाद. सात वर्ष पहले गुजराती लोगों को गुजरात में ही उच्च स्तरीय प्रौद्योगिकी शिक्षा प्रदान करने के उद्देश्य को लेकर वर्ष 2008 में शुरू हुआ भारतीय प्रौद्योगिकी संस्थान गांधीनगर (आईआईटीजी) अब गुजरातियों की पसंद आने लगा है। इसका अंदाजा इस बात से लगाया जा सकता है कि संस्थान में प्रवेश लेने वाले गुजराती लोगों की संख्या वर्ष प्रति वर्ष बढ़ रही है। इस शैक्षणिक वर्ष 2014-15 में अब तक के सर्वाधिक 21 गुजराती विद्यार्थियों ने आईआईटी-गांधीनगर



IIT Gandhinagar
Indian Institute of
Technology Gandhinagar

में बेचलर ऑफ टेक्नोलॉजी (बीटेक) पाठ्यक्रम में प्रवेश लिया है। आईआईटी-गांधीनगर में प्रवेश पाने वाले सभी विद्यार्थियों को रविवार को उपस्थित होना था। इस शैक्षणिक वर्ष 2004-15 में यहां कुल 142 विद्यार्थियों ने प्रवेश लिया है। इसमें छात्रों की संख्या 14 जबकि छात्रों की संख्या 128 है। इसमें सर्वाधिक 33 विद्यार्थी महाराष्ट्र के हैं। संख्या के लिहाज से

24 विद्यार्थियों के साथ दूसरा स्थान राजस्थान का है। तीसरा स्थान 21 विद्यार्थियों के साथ गुजरात का है। इस वर्ष कुल 19 राज्यों के विद्यार्थियों ने आईआईटी-जी में बीटेक में प्रवेश लिया है। यहां प्रवेश पाने वाले सभी विद्यार्थियों को सोमवार से आईआईटी गांधीनगर के प्रोफेसरों की ओर से पांच सप्ताह का फाउंडेशन कोर्स कराया जा रहा है जिसमें इन्हें इतने समय की पढ़ाई के बाद खेलकूद व संस्थान के नीति-नियमों से जुड़ी जानकारी दी जाएगी। आईआईटी-जी में प्रवेश लेने

वाले ज्यादातर ऐसे विद्यार्थी हैं जिन्होंने आईआईटी-बॉम्बे और आईआईटी दिल्ली जैसे नामी संस्थानों में प्रवेश ना लेकर आईआईटी गांधीनगर को प्रवेश लेने के लिए चुना।

जबकि उनके पास बॉम्बे, दिल्ली आईआईटी में भी प्रवेश लेने का विकल्प था। आईआईटी गांधीनगर को चुनने के पीछे इसकी कुछ ही वर्षों में तेजी से हो रही इसकी प्रगति व पसंदीदा पाठ्यक्रम में प्रवेश मिलना और गुजरात का विकास, शांति अहम है।

Times of India ND 22/07/2014 P-4

'Get back eligible ad hoc teachers'

TIMES NEWS NETWORK

New Delhi: The University Grants Commission has again issued instructions to Delhi University colleges asking them to "re-engage those ad hoc teachers on the opening day of the academic session who fulfill the conditions laid down by the UGC and who were in place till the last working day of the previous academic session." The letter was sent on July 21, the day DU colleges reopened.

The Delhi University Teachers' Association has welcomed the decisions of course. Interestingly, they and a dozen members of DU's academic council had attempted to table a resolution demanding almost exactly what UGC has instructed but weren't permitted to.

If ad hoc teachers who were placed in colleges before hadn't been re-appointed on the date of opening, they would stand to lose their summer salary, though they may have worked on admissions and evaluation during the summer months. Some members demanded that ad hocs be allowed to join now and then replaced later-colleges may have to, as the roll-back has impacted workload distribution across and even within departments.

'It has been brought to the notice of the...UGC that colleges of the University of Delhi are facing a serious crisis regarding the re-engagement of ad hoc teachers and that too at a time when the colleges have transited fromFYUP to three year undergraduate programme." says the letter.

Times of India ND 22/07/2014 P-15

Tech to map life's imprint on DNA

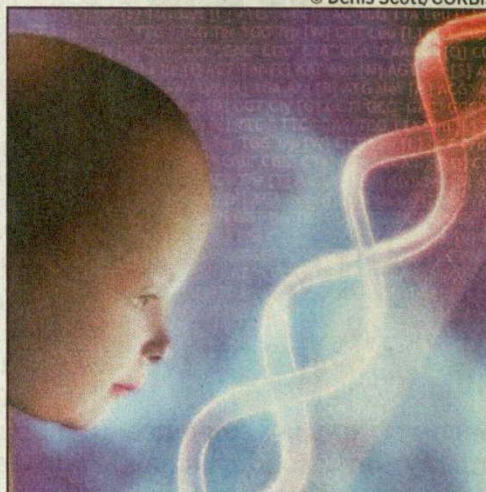
Can Boost Cancer, Fertility Treatments

London: Wonder how your environment is affecting your DNA? New technique can tell! Researchers have developed a powerful new single-cell technique to help investigate how the environment affects our development and the traits we inherit from our parents. The technique can be used to map all of the 'epigenetic marks' on the DNA within a single cell.

This single-cell approach will boost understanding of embryonic development, could enhance clinical applications like cancer therapy and fertility treatments, and has the potential to reduce the number of mice currently needed for this research.

'Epigenetic marks' are chemical tags or proteins that mark DNA and act as a kind of cellular memory. They do not change the DNA sequence but record a cell's experiences onto the DNA, which allows cells to remember an experience long after it has faded. Placing these tags is part of normal development; they tell genes whether to be switched on or off and so can determine how the cell develops. Different sets of active genes make a skin cell different from a brain cell, for example. However, environmental cues such as diet can also alter where epigenetic tags are laid down on DNA and influence an organism's long-term health. "The ability to capture the full map of these epigenetic marks from individual cells will be critical for a full understanding of early embryonic development, cancer progression and aid the development of stem cell therapies," Dr Gavin Kelsey, from the

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STUDYING ENVIRONMENTAL EFFECTS

Babraham Institute, UK said. "Epigenetics research has mostly been reliant on using the mouse as a model organism to study early development.

"Our new single-cell method gives us an unprecedented ability to study epigenetic processes in human early embryonic development, which has been restricted by the very limited amount of tissue available for analysis," said Kelsey.

The research, published in journal *Nature Methods*, offers a new single-cell technique capable of analysing DNA methylation - one of the key epigenetic marks — across the whole genome. The method treats the cellular DNA with a chemical called bisulphite. Treated DNA is then amplified and read on high — throughput sequencing machines to show up the location of methylation marks and the genes being affected. ४११

SPACE

To the moon, and back

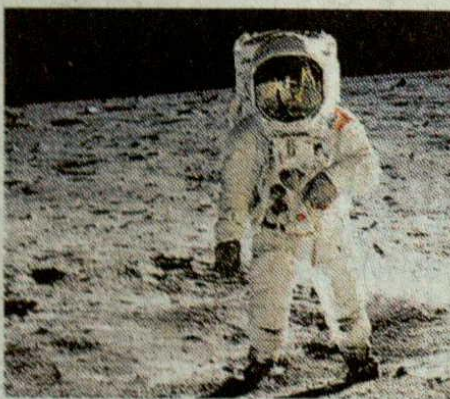
NASA celebrates 45 years of landing on the lunar surface

INDO-ASIAN NEWS SERVICE

Washington, July 21

On July 20, 1969, Apollo 11 astronauts Neil Armstrong and Buzz Aldrin became the first humans to set foot on the moon. Forty-five years later, NASA celebrated the giant leap by honouring Armstrong, who died in 2012, with a renaming ceremony of the historic "operations and checkout building" at Cape Canaveral in Florida, the launch site. Both Aldrin and Michael Collins, the Apollo 11 command module pilot who orbited the moon, were there.

"It was 45 years ago that Neil Armstrong took the small step onto the surface of the moon that changed the course of history. The years that followed saw a space age of scientific, technological and human research on



The iconic image of Edwin Aldrin Jr. walking on the moon AFP

which we have built the modern era," NASA said in a statement.

Giant leap

The Apollo missions blazed a path for human exploration to the moon and today, we are extending that path to near-Earth asteroids, Mars and beyond, it added. To send humans to deep space, NASA engineers are developing a new space transportation capability destined to travel far beyond Earth.

The Orion spacecraft and Space Launch System (SLS)

heavy-lift rocket will be the most advanced space vehicles ever built.

"Around 2019, we will launch a robotic mission to rendezvous with a near-Earth asteroid. The spacecraft will either capture an asteroid or retrieve a boulder off of a much larger asteroid and then redirect the asteroid mass to a stable orbit around the moon," the US space agency said.

In the mid 2020s, astronauts aboard the Orion spacecraft, launched by SLS, will explore that asteroid and return to Earth with samples. In December 2014, NASA is set to conduct the first test flight of Orion. In 2015, the "New Horizons" mission will fly by Pluto and see the icy world up close for the first time. "In 2020, we will send a new rover to Mars, to follow in the footsteps of Curiosity, search for evidence of life and pave the way for future human explorers," NASA announced.

Why This Could be a Tipping Point for Indian Science

First there was the drag. Then came the push. And now comes the pull.

If the last decade was about investing big to improve India's science infrastructure and research output, Budget 2014 contains subtle signals that the next decade could be about the evolutionary crossover from labs to markets, reports Hari Pulakkat



A fortnight after the Union Budget is a good time to probe its messages a bit deeper. The budget noise has died down, people have gone on to their regular lives, and most of its contents forgotten. Yet it is the time when some of its deeper aspects become clear, as we begin to look beyond the numbers to broad changes in direction.

When this budget was presented on July 9, it spelled austerity for science. Scientific departments had received marginal increases in their expenditures, and the department of atomic energy actually a decrease. Most scientist-managers have shrugged their shoulders and gone to their work, but some of the more experienced among them are quietly celebrating. The reason: the budget signalled a key departure on government policies, aimed at creating more market demand for high-quality science.

Through most of the last 12 years, scientists in India had never had it so good. Indian science funding had stagnated for two decades since 1980, but funding started rising from the year 2001. It rose further as India started building new institutions, and more than tripled over the decade after the rise started. It dipped a bit during the recession, but not as much as in many other countries that fund science significantly.

The current budget gave the science departments an increase of 4%, which is not even enough to cover for inflation, but many scientists are not worried. "This budget is a good deal for science because it has created a demand pull for research," says former department of science and technology secretary T Ramasami. "It will force scientific institutions to become relevant."

This pull is from applications in medicine, agriculture, defence, information technology (IT), space engineering, affordable housing and water - areas in this budget the government earmarked for big interventions and innovations. It is also from a large number of start-ups likely to be assisted over the next decade through a special Rs 10,000 crore fund.

However, the optimism over Indian science does not spring from just one budget. It is because science-managers realise that Indian science may be turning a corner, and is likely to be a major contributing factor to the country's economy over the next decade. "In the last few years, we have had policies linking science, technology and innovation," says National Research Professor RA Mashelkar. "So far, we have been converting money into knowledge. Now, we are ready to convert knowledge into money."

Institutionalising Innovation

Signs that the Indian economy is readying to become research-based are every where, and come from both the government and the private sector. In the last three years, 31 states and union territories have created innovation councils, some of which are very active. So have 26 central ministries and other departments. Innovation is a key element of enterprise policies, and a large number of companies have leading scientists and technologies driving their innovation strategies. Mashelkar himself is actively involved in four of them: Reliance Industries, Thermax, Marico and KPIT. "It is only in the last three years that the private

sector has focussed so much on innovation," he says.

Innovation is an overused word, and some of these councils may not be driving innovation of any kind, but there is a clear recognition in the country about the need to convert knowledge into wealth. This recognition is driving academic-enterprise partnerships, creating start-ups and bringing in risk capital.

The Karnataka state innovation council, for example, has started programmes that train students to do research as well as develop potential start-up ideas. Start-up fever has truly caught on Indian campuses, and a large number of new startups, especially by faculty, use their research as input. The government funding pattern is also undergoing a subtle change, and it is looking to develop clusters instead of institutions.

For example, two biology clusters have formed in Faridabad and Bangalore. The Bangalore cluster consists of the National Centre for Biological Sciences (NCBS), the Centre for Cellular and Molecular Platforms (CCAMP), and the Institute for Stem Cell Biology and Regenerative Medicine (InStem), and it is nurturing startups within its campus. "We are creating intellectual synergies," says K VijayRaghavan, secretary of the department of biotechnology, who now has additional charge of the department of science and technology.

Indian Science 4.0

Meanwhile, over a decade of scientific infrastructure creation - both physical and human - has resulted in a strong foundation to create new technologies, which can show up in increased economic growth over the next decade. We could call this phase version 4.0 of Indian science.

The first phase consisted of building the foundation, by creating new scientific institutions. The IITs and most of the laboratories of the Council of Scientific and Industrial Research (CSIR) were created during this phase, which also saw the birth of the departments of space and atomic energy as well as defence research. This phase ended around 1980, when policy-makers felt that India's scientific infrastructure had developed enough for its economy. Then came a period of stagnation, when funding for science stopped rising in real terms, and growth stopped in scientific output as well. This phase ended around 2001.

The next phase of increased funding and growth started in 2001, and has continued till now with occasional dips. Funding for research increased dramatically over this period (See graphic), and so did the country's research output. New institutions were created, and some of them are producing high-quality research.

For example, the scientific establishment felt the need for a set of institutions like the IITs to link science education and research, which led to the creation of five Indian Institute of Science Education and Research (IISER). The ₹1000 crore Nano Mission created basic infrastructure for nanotechnology, especially at IIT Bombay and the Indian Institute of Science (IISc), and is now beginning to create technology startups.

State Of Research

All this institutional growth shows up both in absolute and relative indicators of the country's scientific output (See graphic). India's global position as a creator of new science and

technology has improved significantly over the last decade, with only China ahead of India in terms of growth.

According to an analysis done two years ago by Thomson Reuters, the quality of India's research has also become better in some areas, and reflects in improving citation impacts. Some of these improvements are just recovery of lost ground, but there are genuine advances in areas like physics, engineering, psychology and social sciences. The Thomson Reuters analysis specifically points out improvements in engineering R&D, which has progressed more than any other area other than psychology.

While all this growth took place, there were a few glaring problems. India has not been able to increase significantly its investment relative to its GDP. Ever since the funding growth started in 2001, Indian prime ministers have been pronouncing every year - at the Indian National Science Congress - that the country would increase its R&D investments to 2% of GDP.

This target is considered essential for all research-led economies like in the West and Japan. The economy grew as India increased its R&D investment; so, as a percentage of GDP it was still below 1%. The reasons were clear to many policy makers: India's R&D personnel are a small proportion of its total population.

All developed economies have a high concentration of researchers in science and engineering. North America, Scandinavia, Japan and Australia have the highest concentrations of R&D personnel, followed by Western Europe and Russia. South America, China and central Europe come next, but India is right at the bottom of the list.

This may be brushed away as an insignificant set of statistics by some people, mainly because of the large population of the country, but a research-based economy needs a certain concentration of researchers. In fact, no country has been able to increase its investments in R&D to 2% without having at least 1,000-1,200 researchers per million people living there. China managed to reach that figure, according to recent reports from there. At 164 researchers per million, India is too far behind.

Barriers To Market

This shortage is most intensely felt in the private sector, and is created both by poor supply and demand. India's private sector contributes only one-third of the country's R&D investments, while in developed economies it contributed two-thirds. Observers of the country's R&D landscape feel that India cannot touch the 2% mark without a substantial increase in private sector investments, which in turn cannot happen without Indian science becoming more relevant to the country.

Generous research funding without pressure from the market has, over the decade, created conditions that slow down linkages with industry. Says Prakash Khincha, advisor of IISc and chairman of Karnataka's innovation council: "Easy money discourages the creation of socially relevant technologies."

"This is probably what the current government wanted to change, by funding a series of programmes that are relevant to industries like healthcare, agriculture and rural development. The ₹10,000 crore fund for start-ups, whenever it is formed, will also promote academic-industry linkage as start-ups have begun to emerge in research-intensive areas like electronics, defence, biotechnology and healthcare. "Not all companies need research links, but defence and electronics start-ups do," says angel investor Sharad Sharma. "I am more optimistic about defence and electronics than biotechnology."

One question remains, however: Is this a flash in the pan or a long-term trend? The next few years will likely produce an answer.

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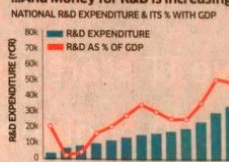
In the last 3 yrs, 31 states and union territories have created innovation councils

The ₹10,000 cr fund for start-ups could promote academic-industry linkage

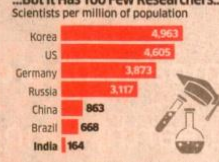
India is Doing Well Overall...



...And Money for R&D is Increasing



...But It Has Too Few Researchers...



...And Industry R&D is Not Keeping Pace



SOURCE: Department of Science & Technology/Thomson Reuters

NOTE: Figures are from UNESCO & are based on 2009 statistics. China has improved its position significantly since then.

SOURCE: Department of Science and Technology

Hindustan Times ND 22/07/2014 P-8

Students in colleges can soon access free WiFi across campus

Vanita Srivastava

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NEW DELHI: Colleges and universities across the country will soon become WiFi enabled, allowing students to get free access to the internet anywhere on the campus.

While most universities abroad are WiFi enabled, most Indian institutions barring a few lag behind in terms of technology percolation to classrooms.

The human resources ministry will be rolling out this facility as an endeavour to help students access the best referential material online.

While the finer details of the plan are being worked out, it is expected to benefit 600 universities and 20,000 colleges.

Universities are likely to receive free WiFi with speeds up to 1 Gbps, while colleges will receive speeds of 10 Mbps, which could be increased depending on usage.

This provision will also help in the development of "massive open online courses" (MOOCs). The BJP had put emphasis on online education and MOOCs in its manifesto.

Some institutions have already started providing free WiFi to its students.

FOR INDIA TO EMERGE AS A GLOBAL KNOWLEDGE SUPERPOWER, IT IS IMPERATIVE FOR STUDENTS TO ACCESS WIFI ACROSS CAMPUS. IT IS A MUST FOR GROWTH AND PROGRESS

ANSH GOYAL, DU student

The Delhi University, for instance, introduced the concept two years ago and in a phased manner has now introduced WiFi to all its colleges.

"For India to emerge as a global knowledge superpower, it is imperative for students to access WiFi across campus. It is a must for growth and progress," said Ansh Goyal, a student of the Delhi University.

Panjab University vice chancellor, AK Grover told HT: "We started the WiFi facility on our old campus a year ago. It is a real boon for students and researchers. The WiFi facility on our campus is free and has been recently updated with improved technology."

Times of India ND
22/07/2014 P-15

2 Australians 'cured' of HIV after cancer therapy

Melbourne: In a discovery that raises hope for AIDS cure, two Australian men have been found to be HIV-free after receiving stem cells to treat cancer. The two patients' virus levels became undetectable after bone-marrow therapy with stem cells. They are still on antiretroviral therapy "as a precaution", but those drugs alone could not be responsible for bringing the virus to such low levels, said David Cooper, director of the Kirby Institute at the University of New South Wales in Sydney, who led the discovery.

Cooper began searching for patients who had been purged of the HIV virus after researchers at International AIDS Society in Kuala Lumpur reported that two patients who had received stem-cell transplants were virus-free.

The first patient had received a bone-marrow transplant for non-Hodgkin's lymphoma in 2011. His replacement stem cells came from a donor who carried one copy of a gene thought to afford protection against the virus. The other had been treated for leukaemia in 2012. He said the results show that "there is something about bone-marrow transplantation in people with HIV that has an anti-HIV reservoir effect. And if we can understand what it is and how it happens, it will speed up cure search." PTI

Computer science branch at IIT-I clicks with top rankers

TNN | Jul 21, 2014, 09.41AM IST

INDORE: Computer science branch at Indian Institute of Technology, Indore (IIT-I) is gradually turning into the most sought after branch. More and more top rank holders in the IIT-JEE, who opt for computer engineering branch, have started preferring IIT-Indore over the new IITs, including those at Mandi, Jodhpur, Bhubaneswar and Gandhinagar.

In the last three years, the opening and closing ranks for computer science branch at IIT-Indore have seen an improvement. While the opening and closing ranks in JEE 2012 counselling were 2,318 and 3,414, it improved to 1,767 and 3,097 in 2013. More fresh talent gained entry into IIT-I computer science branch in 2014 and the opening and closing ranks in 2014 of computer engineering branch remained between 1,388 and 2,573 ranks, after JEE 2014 advance level counselling.

Institute insiders attribute the reason behind rising interest towards computer science branch at IIT-Indore to better placements and career prospects. Students from this branch have been creating ripples at international level competitions and other platforms.

Recently, a team of the institute comprising a trio from computer engineering branch, was the only team after IIT-B to secure place in ACM International Collegiate Programming Contest held in [Russia](#). Highest pay package has also been received by a computer science branch student of IIT-I this year. While the highest pay package offered during recent on-campus placement was Rs 21 LPA a student grabbed 1 lakh dollar job on his own.

However, unlike computer science branch, other branches including mechanical and electrical engineering branches have failed to elicit the same response. Opening and closing ranks have improved in electrical engineering branch at IIT-I in comparison to last year but the overall scene since [inception](#) is discouraging. Interest in mechanical branch at IIT-I has also seen a decline in the past three years.

Orientation for new batch on July 22

The new batch students reported to the hostel on Sunday. On Monday too, candidates from different cities are expected to join the institute. A total of 119 BTech students from 17 states will be part of the new batch. This includes one each from [Arunachal Pradesh](#), Kerala and West Bengal. On July 22, the new batch will be taking part in orientation and registration programme and later visit campus. Classes for the 2014 batch will start from July 23 as scheduled.

Washington and Bombay join hands to educate international executives

Tuesday, 22 July 2014 - 6:35am IST | Place: Mumbai | Agency: DNA

<http://www.dnaindia.com/academy/report-washington-and-bombay-join-hands-to-educate-international-executives-2004104>

IIT Bombay and Washington University in St. Louis (WUSTL) recently announced a joint Executive MBA (EMBA) programme for international executives. Gauri Rane finds out more



Despite the fact that only 10 per cent of the over 3.5 lakh Indian management students graduating every year are employable, it is quite surprising that the MBA degree has not lost its sheen. Not even the sluggish economic growth of the past decade could deter aspirants from going in for the degree, which they thought was a sure shot passport to plum posts and mega bucks. It is probably this spirited pursuit of management industry aspirants that has led institutions to introduce varied modules in the popular post grad programmes.

According to Jill Friedman, vice chancellor, Public Affairs, Washington University in St. Louis (WUSTL), the recently introduced EMBA programme offered in collaboration with IIT-Bombay, is designed to give students broad management and leadership training. "The partnership creates a programme that combines US and Indian management perspectives. In addition, students will get opportunities to gain depth in areas in which IIT has strength, such as technology, energy, and so on," he says.

S Bhargava, head, Shailesh J Mehta School of Management (SJMSOM), IIT Bombay, adds, "The programme will prepare the mid-level executives to face the contemporary and emerging challenges in a global economy, as well as enable them to undertake leadership roles in their respective organisations."

The Executive MBA programme is meant for professionals with a minimum of seven years work experience. Apart from teaching business fundamentals, it will address leadership, strategic management themes, growth

and innovation. "The pedagogy employed will encourage peer group learning through case discussions, group projects and other interactive methods, besides classroom instructions, simulations and guest lectures," informs Bhargava.

The programme is of 18 months duration, where classes will be offered four days per month in Mumbai and it will end with a two-week capstone experience at Washington University. The programme will be jointly delivered by the faculty of SJMSOM, IIT-B and the faculty of Olin Business School, WUSTL. WUSTL faculty members will visit IIT-B campus every month for lectures.

The programme includes real time applications students can use to enhance their development and that can drive results for their organisation. Post course completion, students will graduate from the programme with an Executive MBA degree from Washington University in St. Louis and from IIT Bombay. "To our knowledge, this is the only programme that offers an MBA degree from a US and an Indian university," informs Friedman.

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IITs now hotbed for start-ups

Tuesday, 22 July 2014 - 6:20am IST | Place: Mumbai | Agency: DNA

<http://www.dnaindia.com/academy/report-iits-now-hotbed-for-start-ups-2004093>

IITs have become a hub for entrepreneurs. Gauri Rane finds out why the coveted technology institute has been a breeding ground for start-ups

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From guarantying a plum job with a fat dollar package to creating entrepreneurs, the premium institutes of technology in the country are fast emerging as a breeding ground for start-ups. As the country witnesses a rising trend of entrepreneurship, an increasing number of IITians dare to tread a different and sometimes difficult path and reap rich dividend. "It is a good thing that IITians are taking up entrepreneurship and creating jobs," says Professor Devang Khakkar, director, IIT-Bombay. "A good percentage of students are making this a career choice right in the fourth year of college," he adds.

Take for instance Deepinder Goyal, CEO, Zomato. A graduate of math and computer science from IIT Delhi, Goyal conceptualized Zomato while he was still employed with Bain & Company. "We started uploading scanned restaurant menus on an office intranet to facilitate eating out. Based on the encouraging response we got, we kickstarted Zomato with a database of 1200 restaurants in Delhi NCR."

Goyal's is just one example in the sea of entrepreneurial ventures that have sprung up at different IIT campuses. So what is it that lures an IITian to entrepreneurship? Beas Dev Ralhan, CEO, Next Education, says, "For IITians it is the simple understanding of the risk/ reward ratio in life. When you are young, you have nothing to lose. If you fail you can always start from bottom at corporations even after three years of graduation." An alumnus of IIT Mumbai, Ralhan points out that entrepreneurs are not really affected with lifestyle, perks and money that come along with jobs in the established firms. "Working on a startup is a lifestyle choice. Only thing that seems to work is hard work," he says. Adds Goyal, "A corporate job might offer you a cushy role with perks, but eventually what matters is that you're doing whatever you are most passionate about."

Both Zomato and Next Education have been successful in establishing themselves in the market. The annual turnover of both the ventures is about 11.37 crore and Rs 150 crore respectively. The calling however, has seen many more IITians cross boundaries of the technology institute and venture out in businesses like retail, education, travel, technology, etc. Flipkart, Snapdeal, Travel Triangle and Knowlarity are some examples. A wide spectrum of opportunities however, still remains unexplored.

Does the IIT training have some ingredient that triggers their graduates to pick entrepreneurship as a career choice? Ralhan explains, "IIT taught me one thing and one thing well—'don't ever do anything which you are not passionate about because it will be passion of some other 1000 people on earth so you don't stand a chance."

Goyal reveals. "My biggest takeaways were focus, persistence and follow-through. Focusing on the goal, persistence in getting things done, and the drive to put the best product out there has helped tremendously," he says. Both Goyal and Ralhan agree that what differentiates IITpreneurs from other entrepreneurs is the strong foundation in technology and urge to go beyond just technical education. "It cultivates in you the killer instinct to succeed at all cost," points out Ralhan.

Most IITpreneurs have a combination of BTech/ MTech and MBA (or equivalent qualification) from an 'A' listed institution. Is this the formula to become a successful entrepreneur? "I don't think there is any such formula. To be a successful entrepreneur, you need to have a strong resolve and strength to put in hard work. But then in the end, you will have "lived" your life," explains Ralhan. According to Goyal learning is most important and it happens beyond formal education as well. "Studying at an institution like an IIT or getting an MBA arms you with the right skill set and attitude and helps you in moving closer towards your entrepreneurial goals," he says.

IITpreneurs advise aspiring entrepreneurs to do "what you feel most passionately about, and until you do that, keep learning and working towards it". "Although campus placements offer students great work opportunities, at the end of the day it depends on the person whether they'd like to work in a corporate set-up or start something of their own," concludes Goyal.

IIT-M'S brainchild purifies water for a lakh people



CHENNAI: It has been just a year from its launch and it has already got over one lakh users. This is the story of IIT Madras's arsenic water purifier that caught the eyes of governments in several States of the country.

The nanotechnology-based low cost purifier was first introduced in villages in Murshidabad district, West Bengal, last year after the Arsenic Task Force of the government of West Bengal certified and approved the purifier. Over the course of the year, the community-level unit of the water purifier has been installed in 100 villages in the State, each providing arsenic free water to 100 families.

The research team at IIT Madras has developed two more variants of the water purifier — a larger unit that can provide 18,000 litres per hour and cater to 50,000 people, and a smaller household level variety. Both have found takers. The larger one has been installed at the Nadiya District in West Bengal and the household level purifiers has been installed in 200 households. While the community level purifier provides purified water at the cost of `2 paise per litre, the smaller version costs about `5 paise per litre.

“The government departments and agencies in Bihar, Assam, Uttar Pradesh and Karnataka have expressed interest in the project. Some of these have already kickstarted while the others are in the discussion stage,” said T Pradeep, faculty at the IIT Madras who heads the project.

Meanwhile, there are orders for 1,000 more community level units from West Bengal government. Around 400 of these will be installed in the next three months. The government has asked for two more of the larger 18,000 litre per hour purifiers. The household level purifiers, meanwhile, are being distributed in Bihar through NGOs.

The water purifier works on a black granular looking nano-structured material. The black sand like purifier, which is the key purifier, can filter out water without pumps or solvents. The research wing which has incubated a company, Innonano Pvt Ltd, at the IIT Madras for the purifier, is now working on filters for Fluoride, Lead and Mercury.