

Newspaper Clips
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September 12

QS Graduate Employability Rankings: IIT Delhi, Bombay in world's top 200

<http://indianexpress.com/article/education/qs-graduate-employability-rankings-iit-delhi-bombay-in-worlds-top-200-4839317/>

Delhi University figures in the top league of institutions in terms of the alumni outcomes indicator, which indicates how successful a university is at producing “highly achieving graduates”.

IIT Delhi and IIT Bombay are among the world's top 200 institutions when it comes to producing “employable graduates”, according to the latest edition of QS Graduate Employability Rankings.

The rankings, released on Monday night, pegged both institutes in the 191-200 category globally.

Delhi University figures in the top league of institutions in terms of the alumni outcomes indicator, which indicates how successful a university is at producing “highly achieving graduates”. DU has scored 96.6 out of 100 on alumni outcome — the 21st best score in the world.

“These results indicate that universities cannot rely on reputation alone. They also need to ensure that they are committed to innovative teaching methods, proactively forge relationships with businesses, and provide numerous opportunities for students to meet potential future employers,” Ben Sister, research director, QS, said in a press release shared on Monday.

Overall, Stanford University was number one in the graduate employability rankings followed by University of California in Los Angeles and Harvard University. India has a total of eight institutions in the rankings. Apart from IIT Delhi, IIT Bombay and DU, IIT Madras, IIT Kanpur, IIT Kharagpur, University of Mumbai, Indian Institute of Science also feature in the rankings.

Poor response for PM's speech at city colleges

<http://www.newindianexpress.com/states/karnataka/2017/sep/12/poor-response-for-pms-speech-at-city-colleges-1655808.html>



BENGALURU: Prime Minister Narendra Modi's address on Monday on the occasion of Pandit Deendayal Upadhyaya's centenary celebrations and the 125th anniversary of Swami Vivekananda's address at the Chicago World Parliament of Religions got a poor response from city students. Universities and colleges in the city said they could not prepare for the speech as they got the communication from the University Grants Commission (UGC) late on Saturday evening. "We could not communicate to students properly as the university was closed on Sunday," said a Bangalore University official.

On Monday morning BU authorities had made arrangements for students to listen to the PM's speech at Senate Hall at Jnana Bharathi campus. "Hardly 250 students had gathered at the hall," said official.

Interestingly, some of the students who did listen to the speech were unable to understand it as the entire speech was in Hindi. "It started at 11 am and I could not understand much as he spoke in Hindi," said a post-graduate student in the Kannada department. "When the Prime Minister was addressing the nation, we expected at least a translation or the speech being in English. Most of us did not understand his Hindi," said another student.

The students at government colleges missed the speech as no arrangements were made. But, some listened to it online through smart phones. Some private colleges in the city telecast the speech in their auditoriums. Visvesvaraya Technological University and Rajiv Gandhi University of Health Sciences authorities did not make any arrangements to show the PM's speech to their students.

IIT quake warning system for north India

<http://timesofindia.indiatimes.com/india/iit-quake-warning-system-for-north-india/articleshow/60471320.cms>

NEW DELHI: IIT-Roorkee, is looking to deploy an early earthquake warning system across all cities and towns in seismic-prone north India where people can be alerted about impending powerful tremors a few seconds in advance through sirens.

The institute has already started installing sirens in select cities in earthquake-prone Uttarakhand after successfully completing its pilot project. About 100 sirens will be installed at public places in Dehradun and Haldwani.

"The institute has now been in touch with the Uttar Pradesh government for setting up required sensors and sirens in different towns\cities of the state," said M L Sharma of department of earthquake engineering, IIT Roorkee.

As part of its pilot project, which was started in 2015, IIT-Roorkee had deployed 84 sensors in seismic region of Garhwal Himalayas with the help of ministry of earth sciences (MoES). These on-site sensors stream data in real-time to a computer server at the Institute using the networks of BSNL and statewide area network of Uttarakhand.

Sirens, connected to the server, have been fitted within the campus of IIT-Roorkee to warn of an impending high magnitude earthquake in the region.

"The pilot was successfully completed (in March) and we have a working system within the IIT-Roorkee campus with sirens. Now, we are deploying the same for the first time for public use in Dehradun and Haldwani," said Sharma who is also the principal investigator of the project.

He noted that though predicting earthquakes is impossible, it is possible to save people living in distant cities through a simple warning system which will give them enough lead time to reach a safe open place in case of an impending earthquake.

"We are ready with the system. Any government in northern India, including Delhi, can approach us for setting up sirens to alert people about impending earthquake," he said, adding that researchers have also been working on a model to alert people through their mobile phones. As many as 29 cities and towns, including Delhi and capitals of nine north and north-eastern states, fall under "severe" to "very severe" seismic zones.

Median salaries offered to IIT-Bombay students fall for first time in six years

<http://www.hindustantimes.com/mumbai-news/average-salaries-offered-to-iit-bombay-students-fall-for-first-time-in-six-years/story-7PDsc3OZRPI3njdpEPHivK.html>

The usually high-paying information technology (IT) sector, which is witnessing massive layoffs, is likely responsible for lower salaries, suggest experts.

For the first time in six years, the median salary offered at the Indian Institute of Technology, Bombay (IIT-B) job placements has dipped.

The annual placement report of the institute reveals that the median salary offered by companies for campus recruitment fell by 4.3% during the last academic year. Static growth in the information technology (IT) and manufacturing sectors seems to be the primary reason why the annual salary package offered to the average student - which is usually on an upward trajectory - slumped this year.

The placement report put the annual gross median salary for 2016-17 at Rs9.38 lakh, down from 9.8 lakh in 2015-16. In other words, half the IITians who got jobs in campus placements last year received salary packages less than Rs9.38 lakh per annum.

In the recent years, the premier institute had been witnessing a steady, if not a sizeable, swelling of packages. In the period between 2011-12 and 2015-16, the median salary offered by companies visiting IIT-B rose from Rs7.6 lakh to Rs9.8 lakh.

While the highest salaries are often in tens of lakh rupees (converted from dollars), the majority of students get much smaller packages. The average gross salary - which indicates the average size of a

package - last year was Rs 11.41 lakh per annum, while the average cost to company (CTC) was Rs13.38 lakh.

The usually high-paying information technology (IT) sector, which is witnessing massive layoffs, is likely responsible for lower salaries, suggest experts. The number of job offers made by IT companies dropped from 270 in 2015-16 to 184 offers last year.

“While the IT companies that produce original products don’t reduce their offers, the offers made by the IT services industry has shrunk. Many of the high paying companies haven’t made many campus visits. They are not making many offers either. The offers made by engineering firms too seems to be static,” said Kamal Karanth, a human resources executive.

Data reveals that the students, in general, received smaller packages this year, with fewer companies offering higher salaries. For example, during 2015-16 placement season, 96 companies had offered more than Rs11 lakh per annum - the highest bracket - to 435 candidates who were placed. By comparison, a year later in 2016-17, 403 candidates received above Rs11 lakh packages, even though the number of companies offering in the highest bracket rose to 111.

The premier institute also saw fewer students getting placed during the last placement season. Of the 1,718 students who registered for the placements, only 1,114 (65%) were placed. By comparison, 1,143 out of 1,628 (70%) candidates found jobs in 2015-16. IIT-B clarified that not all of the registered candidates participate in the placement process. Some opt for higher studies instead.

Speaking on the condition of anonymity, a student coordinator from IIT-B’s placement team suggested that the students preferred better career prospects than higher salaries. “Many students chose to go for research and technology or analytics because it provides them with better exit options and more opportunities for career advancement,” he said.

However, Karanth believes that IIT-B may have lost some of its bargaining capacity due to lower industry demand and abundant availability of non-IIT engineers. “The institute seems to have caught up between ensuring the placement of most of its students and getting a good deal for them,” he said.

Salary offered*	Number of offers in 2015-16	Number of offers in 2014-15
Above 11	435	365
9.5 -11	177	162
8 - 9.5	181	180
6.5 - 8	155	124
5 - 6.5	139	204
below 5	56	83
Total	1143	1118

*Per annum, in Lakh Rupees.

How to build a battery with an eyeliner, some bacteria and a filter paper!

<https://researchmatters.in/shots/how-build-battery-eyeliner-some-bacteria-and-filter-paper>



Batteries come in all shapes and sizes, and power the modern world, from the tiny hearing aid and gadgets like wrist watches, smartphones, laptops and camera, to large entities like cars and trucks! Irrespective of their shape, size and function, the working principle behind all batteries is pretty much uniform: two electrodes – an ‘anode’ attracting negative ions and a ‘cathode’ attracting positive ions – connected by an electrolyte, undergo redox reactions to help convert other forms of energy into electrical energy. When the circuit is completed, the terminal voltage across the anode and cathode drives the flow of electrons / ions across the electrodes generating an electric current. Now, scientists at IIT Kharagpur have come up with an ingenious prototype of a microbial fuel cell, which is not only environmentally friendly and flexible enough to be fabricated in any size or shape desired, but can also be made using commonly available materials. The scientists used electrodes made from paper and filled it with a mixture of bacteria and organic fuel, to construct the novel ‘bio-battery’. They further used commercially available eyeliner as a conductive ink for providing electrical conductivity to the paper-based cathode and anode. The eyeliner contained carbon nanoparticles as well as iron oxide (Fe_3O_4) which provided the conductivity. Additionally, a Whatman filter paper was used for both supporting the electrodes as well as for separating multiple such microbial fuel cells from each other. The bacteria stored within these biocompatible electrodes, in their active form, can chemically oxidize the organic fuel to generate a current. Such a microbial fuel cell can be rapidly powered up and can provide up to 12.5 watts per cubic metre of power. Microbial fuel cells like these can, in principle, be used for fabricating a plethora of tailor-made electrodes for use in various kinds of power consuming devices.

September 11

Government gears up to set up International Ayur Research Institute

<http://www.newindianexpress.com/states/kerala/2017/sep/11/government-gears-up-to-set-up-international-ayur-research-institute-1655272.html>

THIRUVANANTHAPURAM: The government has set the ball rolling for setting up the International Research Institute of Ayurveda (IRIA) with the Ayush Mission finalising the data collected from

reputed institutes across the country on various aspects such as administration, novel therapies and disease prevention. Ayush Mission has been entrusted with the project's implementation.



The three teams constituted to look into the functioning of reputed institutes across the country have almost completed their visits and a final report will be submitted within three weeks, said Ayush Mission State Programme Manager and coordinator of the teams Dr M Subash.

“As of now there’s no research institute of international standards for Ayurveda in the country. This is why we decided to visit some of the well-known research institutes in the country to get a firsthand experience of their functioning,” said Subash.

The teams had visited 23 institutes across the country. IIT Roorkee, Indian Institute of Toxicology, CSIR National Botanical Research Institute, Central Drug Research Institute (all Lucknow), All India Institute of Ayurveda (New Delhi), Rajiv Gandhi Institute of Biotechnology, TGBRI, Sree Chitra Thirunal Institute of Medical Sciences (all Thiruvananthapuram), Ayurveda University (Jamnagar), National Institute of Ayurveda (Jaipur), Centre for Cellular and Molecular Biology, National Institute of Nutrition (both Hyderabad) and NIMHANS Integrated Centre for Yoga (Bengaluru) were the government institutes they visited.

Besides, they also turned up at Dabur Research Foundation, Amrita Institute of Medical Sciences, Himalaya Research and Drug Development.

Subash, while stating one of the focus areas is to integrate modern science with Ayurveda, said the visit to IIT Roorkee, CSIR National Botanical Research Institute, and Centre for Cellular and Molecular Biology had given the lead for integrating biotechnology into Ayurveda.

One of the aims is to promote research work linking Ayurveda with biotechnology and to ensure global standards for ayurvedic medicines.

The visits to the various institutes were undertaken as the IRIA’s aim is to utilise science and technology to validate Ayurveda, he said. The experience provided by the visits will help to set up a comprehensive research institute.

The project, proposed to be implemented with financial assistance from the state and the Centre, is expected to cost Rs 300 crore. The state government has already set aside Rs 50 lakh in the 2016-17 budget and Rs 5 crore in the 2017-18 budget for the initial works.

'Young India, New India': Prime Minister to Address Student Leaders' Convention Today

<http://www.ndtv.com/education/young-india-new-india-prime-minister-to-address-student-leaders-convention-1748573>

To mark Pandit Deendayal Upadhyay Centenary Celebrations and 125th Year of Swami Vivekanand's Chicago Address, Prime Minister Narendra Modi will address the Student Leaders Convention today at Vigyan Bhawan.



Prime Minister to Address Student Leaders' Convention to Mark Swami Vivekanand's Chicago Address

NEW DELHI: Prime Minister Narendra Modi will address the Student Leaders Convention today at Vigyan Bhawan. The address is scheduled to start at 10:30 am. The PM's address will mark Pandit Deendayal Upadhyay Centenary Celebrations and 125th Year of Swami Vivekanand's Chicago Address. The theme of the address is "Young India, New India - A Resurgent Nation: from Sankalp to Sidhhi". The address will focus on Vivekananda's teaching in the present day context. To increase the reach of the programme, UGC and AICTE have directed universities and higher education institutes to make arrangements for the faculty and students to watch the address.

UGC had issued a circular for universities and higher education institutes which said, "On 11th September, 2017, at 10.30 am, Hon'ble Prime Minister will address the Nation to remind one and all about the relevance and significance of Swami Vivekananda's teachings in the backdrop of today's social milieu. It would be of particular importance for the youth of today to understand and absorb the content of Swami Vivekananda's messages to the World, in order to ensure their right educational, career and spiritual growth."

The circular also said, "It is requested that the above event is propagated effectively and interested students obtain the facility to view such a significant programme that could be life changing."

The programme will be available as a webcast on the MHRD website.

This is not the first time that UGC has issued such a circular. For Independence Day, this year, UGC had notified universities and other higher education institutions about the programmes which should be covered in Independence Day celebration and an oath was circulated which was to be taken by students and faculty members on the occasion of Independence Day.

September 10

Govg committee looking at cow derivatives gets 54 proposals

<http://indiatoday.intoday.in/story/govg-committee-looking-at-cow-derivatives-gets-54-proposals/1/1044851.html>

New Delhi, Sep 9 (PTI) A government panel set up to carry out "scientifically validated" research into cow derivatives, including its urine, and their benefits has received 54 proposals, committee co-chairman Vijay Bhatkar has said.

He said of these, 27 were selected and clubbed into 17 broad proposals under five thematic areas of research-- uniqueness of indigenous cows, medicine and health, agriculture applications, food and nutrition and the scientific validation of Panchagavya-based utility products.

Panchagavya is a concoction of cow dung, cow urine, milk, curd and ghee.

"We have decided to go for more projects and invite institutes working on the subject," Bhatkar told PTI.

The proposals, focusing on different aspects of cow research, have come from laboratories under different ministries of the Central government.

Bhatkar, who is the president of Delhi-based Vijnana Bharati, an RSS-affiliated science body, said the committee had decided to widen its ambit and look at research on "cow ecology", which could include aspects such as energy and indigenous breeds.

The national programme SVAROP (Scientific Validation and Research on Panchagavya) is being conducted by the Department of Science and Technology, Department of Biotechnology and the Council for Scientific and Industrial Research (CSIR) of the Ministry of Science and Technology, in collaboration with IIT-Delhi.

The 19-member National Steering Committee, headed by Science and Technology Minister Harsh Vardhan, will decide the course of SVAROP.

A committee member, who requested anonymity as panel members are not authorised to speak to the media, said a decision has been taken to form joint committees under different ministries covering the five themes.

"The word Panchagavya is being widely misconstrued and this was discussed during the meeting. Steps will be taken to address the perception problem by the minister himself," the panel member added.

Apart from Bhatkar, the panel also has two members linked to the RSS and the Vishva Hindu Parishad.

The two members are Jaykumar, the secretary general of Vijnana Bharati, and Sunil Mansinghka, whose Nagpur-based Go Vigyan Anusandhan Kendra is affiliated to the VHP.

IITs and IIMs can now admit an extra 30 percent foreign students to foster 'international cooperation, courtesy UGC's new diktat

<http://www.edexlive.com/live-story/2017/sep/10/iits-and-iims-are-now-letting-in-extra-30-percent-strength-of-foreign-students-1094.html>

Top Eminent Government institutions in India, which will possibly include IITs and IIMs will now admit extra 30 percent of foreign students under the new UGC guidelines

The University Grants commission has now framed new guidelines, according to which IITs and IIMs will be allowed to admit more foreign students — to the extent of 30 percent of their existing student strength.

'Eminent' govt institutes free to admit extra foreign students New Delhi, Sep 10. The government 'Institutions of Eminence' will be free to admit extra foreign students, fix their fees and ink collaborations with foreign varsities without prior government approval, according to the country's higher education regulator.

A total of 10 institutions will be declared as 'Institutions of Eminence'. According to new guidelines framed by the University Grants Commission (UGC) for selection of 'Institutions of Eminence', they would be free to admit additional foreign students on merit subject to a maximum of 30 per cent of the strength of admitted domestic students.

Academic collaborations with foreign higher educational institutions ranked in top 500 in global rankings would be exempt from government approvals except with institutions from negative list of countries determined by the Ministry of External Affairs/Ministry of Home Affairs

Senior Official, University Grants Commission

The institutions will also be free to offer new courses within a programme as well as to offer degrees in newer areas, besides flexibility in fixing course structure in terms of the number of credit hours and years to take a degree.

"The Institutions of Eminence shall have complete flexibility in fixing of curriculum and syllabus, with no UGC mandated curriculum structure. They will also have the freedom to offer online courses as part of their programmes with the restriction that not more than 20 per cent of the course should be in online mode.

However, this 20 per cent restriction would not preclude the institutions from offering certificate courses entirely through online mode

Senior Official, University Grants Commission

"These 10 institutions would be a mix of technical institutions, management and arts institutions and central universities. They should figure in the top 50 of the ranking in their category under the latest National Institution Ranking Framework (NIRF)," the official added.

Jobs, harassment push up PhD dropouts

https://www.telegraphindia.com/1170911/jsp/nation/story_172211.jsp

New Delhi, Sept. 10: Nearly 40 per cent of researchers in some of the country's top institutions may be dropping out because of personal problems, job opportunities and alleged harassment by guides, according to data on admissions versus grant of PhDs.

Year-wise data on admissions and award of PhDs obtained by **The Telegraph** under the Right to Information Act from 11 universities, including six top IITs and IISc Bangalore, showed a possible decline in the dropout rate - from 53 per cent in 2011-12 to about 37 per cent in 2015-16, which is still high.

The RTI application was filed with about 20 universities and IITs. Eleven of them provided the data with clarity.

It is difficult to get the exact figures of how many of the students taking admission in a particular year actually end up getting their degrees because of the flexible duration of research programmes allowed by institutions.

Academic Andre Beteille said dropping out amounted to wastage of national resources. "Entering into PhD is like a waiting room. Not everybody wants to do research. A dropout is a loss. This wastage is not good for the nation," Prof. Beteille said.

PhD rules used to vary across universities till the University Grants Commission (UGC) prescribed rules on admission and evaluation in 2009. The higher education regulator revised these rules in 2016.

The duration of PhD programmes vary from institution to institution. According to UGC regulations, the minimum duration is three years and the maximum is six years. Extensions beyond six years will

be governed by the statute and ordinance of the institution concerned.

Some universities allow re-registration of students in case they fail to complete their research in six years. For example, Jadavpur University, Calcutta University and Jawaharlal Nehru University allow re-registration, while some institutions like Delhi University has stopped the practice.

Beteille said the dropout rate was not so high in Ivy League universities or top British varsities because of regular monitoring on the part of supervisors. "In our institutions, there is monitoring. But that rigour is not very active."

He said students after taking admission in PhD courses get accommodation and access to libraries and many use these resources for preparing for civil service exams and other jobs. Once they get the job, they leave research.

Not that jobs are the only reason researchers quit. Pranav Sadanan Deshpande, who had enrolled in the School of Electrical Sciences at IIT Bhubaneswar, has quit complaining of harassment by the guide, Prof. R.V. Raja Kumar, the director.

In his complaint last year to the human resource development ministry, Deshpande claimed he was "frustrated by the short tempered behaviour of Prof. Raja Kumar".

The student also alleged that the director was giving him time after 10pm.

Raja Kumar has denied the allegations, saying students make such claims because they cannot cope with the rigours of research.

"I have guided so many PhD students in IIT Kharagpur. What matters is quality PhD. Not everybody is cut out for this. My job is to see whether he is progressing or not. If he is not capable, we provide guidance. So there is some emotional breakdown," Raja Kumar told this paper in October last year.

Professor Sashwati Mazumdar, who teaches in Delhi University, said 60 per cent students completing research was a good achievement in view of the focus required and also the personal problems many face.

"Students come from diverse backgrounds and many don't get a fellowship. Research requires great concentration. But many students are not able to sustain the concentration because of family problems and pressure," she said.

In the response provided by the IITs and the universities, some institutions mentioned family and personal problems as a prominent reason for dropping out. For example, the reply by IIT Madras registrar V.G. Bhooma said 29 of the 42 students who cited reasons for dropping out mentioned personal problems.

Mazumdar said if a student failed to submit his or her thesis within six years, he or she should get an opportunity to re-register. "It is possible that many students would be failing to complete their work

for genuine health reasons. A university like DU must give them a chance," she said.

The DU teacher also said research in social sciences was mostly done by individuals, while research in science was largely project-based and involved a group. Research in social sciences needs to shift to project mode, Mazumdar added.

Now, chaiwallahs come from IIT & Harvard

<http://timesofindia.indiatimes.com/home/sunday-times/now-chaiwallahs-come-from-iit-harvard/articleshow/60442258.cms>



For those who have studied at IIT Delhi, and quite a few who haven't, Sassi ka Dhaba, opposite the institute is an institution in its own right. In 2010, when Raghav Verma hadn't still passed out of the hallowed IIT portals, Sassi was the only go-to place for chai with paranthas and the like, fuelling long hours of study. Now, in 2017, five years after he founded Chaayos, one of India's most successful and rapidly growing tea startups, Sassi is just a fond memory. While it continues to exist, Verma as well as other entrepreneurs are now busy brewing their own kadak cuppas for millions of chai fans around the country.

One of the biggest changes in India's food scene in the last five years has been what can only be called the cafe-isation of chai. India's favourite hot beverage — the market is estimated to be more than Rs 1 lakh crore (assuming two cups of chai a day for every adult Indian) — is not just being brewed, boiled and sipped at home or at unorganised chaiwallahs found outside offices, markets, and neighbourhoods but at trendy chai cafes. From ginger and masala chais to customised elaichi-only or hari mirch chais and inventive mithai brews (made with condensed milk at Chaayos, described as the "hot chocolate" of chai), there is a cup for every palate, as well as a price point.

Chai Point, started in 2010 by Harvard alumnus Amuleek Singh Bijral in Bengaluru, was the first of these chai startups to start changing the game. Today, with over a hundred outlets pan-India, it claims to serve more than 3 lakh cups of tea every day. Chaayos has grown from 7 cafes in 2015 to 40 cafes in Delhi, Mumbai and Chandigarh after it received an impressive \$5 million funding from Tiger Global.

Verma, one of the two Chaayos founders, recalls the initial scepticism. "When we started, one

question everyone asked us was whether Indian customers will pay that much (Rs 40-150) for chai. But right from our pilot project in Cybercity, Gurugram, we found that people did and happily came back. A key to our business is repeat clientele, which is as much as 40-45%," he says.

Verma will not share his revenue numbers but says year-on-year growth is 300%. The company is now looking at highways (they've opened an outlet in Karnal) and airport formats, besides 24-hour cafes and large 100-150 seaters (they opened one in Delhi's Karol Bagh).

Chai Thela, a QSR startup focusing on offices and commercial hubs, offers street snacks like poha and vada-pav along with chai. Last year, it raised Rs 1.5 crore from micro-venture capital firm Quarizon and is set to expand. Its founder Pankaj Judge points out: "Earlier, all QSRs only focused on international foods. Now, the younger generation of Indians is more confident about its tastes." Chai, Judge says, is no longer playing second fiddle to coffee, which was always seen as an aspirational drink. "If you had to take someone out for a date, you would ask her out to coffee. But now chai is cool too," adds Judge.

In fact, chai fans don't just want to frequent these cafes but order in as well. Both Chaayos and Chai Point offer home-delivered chai in insulated "kettles". "Initially, we thought this would be a convenience for offices. But half our business is coming from homes," points out Verma. Nothing can prove a changing chai culture more.

From Tea Halt to Tea Trails, there are a host of similar enterprises tackling different segments of this booming business. Some of these focus on functional needs within offices, others take the hygienic kiosks/QSR route where fresh chai can be dispensed quickly, and others focus on the entire cafe experience.

Chai's image change is perceptible within more luxury environs as well. A host of upscale restaurants are increasingly offering robust chai and not just exclusive tea menus. At St Regis Mumbai, the country's top luxury hotel brand, the afternoon high tea service is part of the brand's core global experiences. Champagne is sabred, flutes of it can be enjoyed alongside a decadent high tea, with some of the finest tea varieties. But even within these elite environs what also does stupendously well is the local cutting chai. At Seven Kitchens, the coffee shop, you can see waiters weave their way through tables with glasses of cutting chai for breakfast every day.

"We wanted to educate guests about this hot beverage that refreshes and energises Mumbai. Our guests love it and almost one out of five asks for the recipe," says Sachin Mylavarapu, executive assistant manager (food and beverage), The St Regis, Mumbai. The hotel serves 50 litres of cutting chai every breakfast — a whopping 450-500 glasses.

September 9

Why India's most educated women are leaving jobs faster than others

<http://www.hindustantimes.com/india-news/why-india-s-most-educated-women-are-leaving-jobs-faster-than-others/story-9VqXXn511Xm3PyQZfIOzPN.html>

High potential men and women in India start out on an equal footing when it comes to job levels, pay and even aspiration, but, over time, a gender gap emerges with women earning less, receiving fewer developmental opportunities compared to men.



In eight years to 2012, 19.6 million women quit or lost jobs in India, says a report.

It was while working for a shopping website that Parul A Mittal, 43, discovered her calling as a writer. It was 2008. She had been working for 12 years, was at middle management level at her company and no reason to quit.

Except her younger daughter had just begun showing signs of a breathing problem, and Mittal was at that stage in her life where her husband was immersed in his job at a venture capital firm. "I used to feel mentally and physically exhausted all the time," she said.

It was at this time that Mittal wrote her first book, Heartbreaks & Dreams: The Girls@IIT.

With a degree in electrical engineering from Indian Institute of Technology, Delhi, and a Masters in Computer Science from the University of Michigan (Ann Arbor), Mittal had tried it all—part-time hours, freelancing, a sabbatical. For a while she even ran a parenting website, but shut it down in 2016 when it reached a point where 'you take funding and scale it' or close shop.

Still, she didn't give up on the tech sector until earlier this year with her last job at a travel portal in a 'pretty senior role' as the only woman vice president in the company. With it came not just the office politics but a requirement to commit herself to the job 24x7.

Even that might have been tolerable.

The deal-breaker, however, was the office culture where the other staff seemed happy to stay on till 8 pm and beyond. “For me, 6-8 pm is sacrosanct. It’s pretty much the only time I get with my family,” Mittal said.

So, although both her daughters were fine with her absence from home, although she had hired help with housework, although she had in-laws who pitched in, she put in her papers in February this year after completing 11 months with the company, ending a career spanning 20 years.

“That job finally purged the desire in me to work in the corporate world,” she said.

Later this month, she will be launching her third book, *Let’s Have Coffee*, published by Rupa.

Mittal is just one of millions of Indian women who have been falling off the employment map in India, as our ongoing series has reported. But as this story explains, she represents a special category of women.

In eight years to 2012, 19.6 million women quit (or lost) jobs. This decline is evident whichever way you slice the data: Rural or urban, formal sector or informal, illiterate women or post-graduates. The biggest decline has been amongst two groups—illiterate women and post-graduates, according to a 2017 World Bank report, *Precarious Drop: Reassessing Patterns of Female Labour Force Participation in Indian*.

There was an 11.5% decline in the workforce participation by illiterate women in rural areas. In urban areas, workforce participation for illiterate women was 5%.

Workforce participation amongst college-educated women fell by 8 percentage points in rural India and 4 percentage points in urban India between 1993-94 and 2011-12, said the report.

Why would a woman with a college education quit employment? A clue might, perhaps, lie in college.

To have more women leaders, India needs more women students in elite institutions

There’s no shortage of women science teachers in schools and colleges in India, found a 2015 report from the Association of Academies and Societies of Sciences in Asia. A gap emerges during the transition from acquiring degrees to pursuing a career in science.

Unlike many western countries, in India, the issue is not about convincing girls that they can study science and engineering. It’s more about “how to attract women to a career in science and to retain the trained scientific woman power in science”, said Rohini Godbole, vice president of the National Academy of Sciences and the author of the report’s India annexe.

Women are fairly well represented in engineering and medical college in India. Admission data for 2000-01 showed that women comprised 30% and 45% of students in engineering and medical colleges respectively, found the same report.

But when it comes to the elite IITs, the numbers just dwindle to single digit percentages—8% in 2016, 9% in 2015 and 8.8% in 2014.

Even when women get into the IITs, they are less likely to qualify for the top-ranked ones.

For 2017, only 20.8% of students who qualified were women, indicate results for the Joint Entrance Examination (JEE)—Advanced, the test designed specifically for the IITs and recognised internationally as one of the toughest undergraduate admission tests. Moreover, 93.2% of the top 1,000 positions were taken by men.

Yet, said Godbole, although the fraction of women students in the IITs is small, the gender gap amongst high achieving students is negligible.

Why aren't more girls getting into the IITs?

"The fiercely competitive nature of the admission process requires one to spend money and time to prepare for the entrance examinations," said Godbole. "I suspect that the parents, on average, tend not to spend this for daughters."

IIT Roorkee Researchers Develop a New, Low Cost Method for Treatment of Osteoarthritis

<http://theindiasaga.com/social-sector/iit-roorkee-researchers-develop-a-new-low-cost-method-for-treatment-of-osteoarthritis>



Researchers at the Indian Institute of Technology, Roorkee have developed a new, low-cost method for treating Osteoarthritis-- a degenerative joint disease which leads to loss of bone cartilage and eventual inflammation of bone and joints.

The new treatment involves injecting ferro-magnetic nano-particles with thermal properties for treatment of the afflicted knee joints. The research published in the 'Journal for Materials Science—Biomaterials.'

According to a member of the research team, Prof K.L. Yadav, the team at IIT Roorkee developed a specific ferrite nano-material, which will provide prolonged thermo-regulated treatment. These polymers based nano-particles when injected around the knee joint along with normal heat therapy will be able to provide long term heat therapy for the patient.

"Currently, the treatment of osteoarthritis is done using anti-inflammatory drugs and steroids, which have critical side effects on patients. Also, the treatment using such drugs cannot inhibit the natural progression of this degenerative disease," says Prof Yadav, Head of Physics Department at IIT, Roorkee.

"Other than these, techniques such as knee replacement are also used, but are expensive and have a long recovery time. We wanted to develop a low cost, affordable, safe and simple therapeutic technique to inhibit the progression of the disease and enable the patient to recover faster," Prof Yadav said.

"We developed magnetic polymer matrix composite using ferromagnetic nano-particle structures insulated with Poly (vinylidene fluoride) polymer. It is proposed that the synthesized material in a liquid form may be injected into the affected knee joint. Once the liquid is inserted into the knee joint, the hyperthermia treatment through electromagnetic radiation can be given on the specific area at regular intervals. The heat generated during this process by the nano-particles will spread over the afflicted area for a long duration without affecting the nearby cells or tissues. This will help us in getting a focussed treatment only in the area where the therapy is required," he explained.

The IIT Roorkee is among the foremost of institutes of national importance in higher technological education and in engineering, basic and applied research. Since its establishment, the Institute has played a vital role in providing the technical manpower and know-how to the country and in pursuit of research.

The Institute ranks amongst the best technological institutions in the world and has contributed to all sectors of technological development. The Institute had celebrated its Sesquicentennial in October 1996 and now completed more than 170 years of its existence. It was converted to IIT on September 21, 2001.

IIT Madras: New eco-friendly cement being tested for use in industry

<http://www.thehindu.com/sci-tech/science/iit-madras-new-eco-friendly-cement-being-tested-for-use-in-industry/article19650901.ece>



Challenge the limitations to traditional processes that manufacture cement from clinker-limestone or clinker-calcined clay combinations are well known.

The material and process of manufacturing contribute to reduced CO₂ emissions

A research collaboration between India and Switzerland on a new cement material that can reduce carbon dioxide emissions in the manufacturing process is set to take off into implementation.

The construction sector is a major contributor to global carbon dioxide emissions. Though this is known, it appears difficult to reduce the scale of construction, especially as it is a route to establishing more equitable conditions in developing countries like India. One way of mitigating the emissions factor is the use of Limestone Calcined Clay Cement or the LC3 technology.

Traditional processes that manufacture cement from clinker-limestone or clinker-calcined clay combinations are well known. LC3 effects a synergy between these processes. The combination of the new method and the material properties effectively reduces carbon dioxide emissions by 30% as compared to the traditional way of manufacturing cement. Research on this evolved over ten years in Karen Scrivener's lab at the Swiss Federal Institute of Technology (EPFL) at Lausanne, in Switzerland. Partners in this research are IIT Delhi, IIT Madras and TARA (Technology and Action for Rural Development).

Emissions and substitution

In manufacturing portland cement, limestone and materials like clay are heated together in huge kilns to high temperatures (approximately 1,450 degrees C), so that they fuse without melting to give clinker. "This is the most CO₂-intensive part of the whole process. The carbon dioxide comes both from the burning of the fuel needed to create that temperature and due to the breakdown of limestone into calcium oxide and carbon dioxide. The latter part accounts for 60% of the CO₂ emissions in manufacture of cement," says Prof. Scrivener. The best thing to do would be to substitute CO₂-intensive clinker with a different material.

In India, fly ash – a waste produced in the burning of coal for producing energy – is used in the manufacture of blended cement. However this is used in a lower proportions and only where available; therefore, for effectively reducing emissions, more clinker is to be substituted with calcined clay and limestone. This reduces emissions by 30% with respect to portland cement.

Lab to commerce

To take this product from the lab to commercial use requires that the cement be certified by reputed research and testing centres, and for this purpose, Prof. Scrivener's team has collaborated with Indian and Cuban agencies. The results of the Indian tests were published in *The Indian Concrete Journal*, special issue on cements. Nearly ten tonnes each of four blends of LC3 (50% clinker, 30% calcined clay, 15% crushed limestone and 5% gypsum) were produced in India. To obtain a variation, clays and limestones of two different qualities were used. The LC3 obtained was used to manufacture solid and hollow concrete blocks, door and window frames, low duty paving blocks and roofing tiles, and to make roads. "Good results were obtained from the blends despite the sub-optimal conditions of production of the cement, demonstrating the viability and robustness of the technology," Shashank Bishnoi of IIT Delhi and other authors write in the paper. The authors compared the strength of the various LC3 samples with Ordinary Portland Cement (OPC, a popular type of cement) and Portland Pozzolanic Cement (PPC, a variation of OPC in which locally available fly ash was added). They found that the strength of the LC3 made with low quality clay was comparable to the OPC and the samples of LC3 containing superior quality clay was higher than the OPC.

In fact, there is an added advantage to the new material when used in coastal areas where reinforced concrete can be damaged by chloride diffusing through the material. "The new cement has less porosity and it is more difficult for the chloride to get in and damage the steel rods," says Prof. Scrivener. This gives the new cement a longer service life.

"From the beginning we have been in talks with the industry and the stakeholders," says Ravindra Gettu, Professor, Department of Civil Engineering, IIT Madras. "In India, the first company [J K Lakshmi Cements] has made the industrial trials at its own expense, and we're working to set up the second set with a different company in a few months," adds Prof. Scrivener.

Though there is an initial cost, the payback times are of the order of five years, adds Prof. Scrivener.

A student from IIT Kanpur bags James Dyson award

<https://www.brainbuxa.com/education-news/a-student-from-iit-kanpur-bags-james-dyson-award-7093>

A student from IIT Kanpur developed a retrofit patient transfer system which won India the James Dyson award. The patient transfer system is named as MAATTAM and is developed by a final year student of IIT Kanpur, Ashish Mohandas, as a final year degree project.

After surveying the nurses, doctors and ward-boys Ashish found that majority of hospitals and clinics in India lack the efficient stretcher which can help in transferring the patients from one place to another without pain.

“I wanted to design a simple, affordable and retrofit solution which would most appropriately solve the problem of patient transfer in hospitals and create a better experience, every time the patient is getting transferred. It will also ensure evading the problem of spine disorders while shifting,” said Asish Mohandas.

James Dayson award runs in 23 countries and for the first time was extended to India. The James Dayson award looks for the designs which are simple and yet have the potential to impact the society in a huge way.

This innovation will now compete for the International Winner Award whose results will be declared on October 26, 2017. The prize money for the award is 30,000 euros.

September 8

Times Higher Education World University Rankings: IISc, IIT Bombay top the rank, AMU is the best Indian University

<https://techobserver.in/education/times-higher-education-world-university-rankings-iisc-iit-bombay-top-rank-amu-best-indian-university>

The latest Times Higher Education World University Rankings has been released and there is no surprise for India. Like every year, there is no university from India in Top 250.

The latest Times Higher Education World University Rankings has been released and there is no surprise for India. Like every year, there is no university from India in Top 250. The top ranks has been dominated by University from UK and USA. The University of Oxford has held on to the number one spot for the second year in a row, while the University of Cambridge has jumped from fourth to second place.

Interestingly, two of the Chinese institutions have improved in terms of their reputations for teaching and research this year – meaning that there are now three Asian universities in the top 30 of the ranking which include number one university of Asia – National University of Singapore.

For India, The Indian Institute of Science (IISc) with rank of 251-300 and Indian Institutes of Technology (IIT), Bombay with rank of 351-400 are the top two institutes, rest of the IITs and universities have rank above 500. IIT, Delhi, Kanpur, Kharagpur, Roorkee shared the rank of 501-600.

But other than these two top institutes or IITs, only handful of India universities could make it to top 1000 list. Among the Indian universities, Aligarh Muslim University (AMU) topped the rank followed by Banaras Hindu University (BHU), University of Delhi (DU), Jadavpur University, Panjab University, and Savitribai Phule Pune University, Tezpur University. They all share the rank of 601-800.

The latest table suggests that the US and Australia’s standing in the table in future years could also be threatened. Nearly all of the US’ top-200 representatives (59 out of 62) faced drops in their research income per academic staff member and future levels of federal research income under the

Trump administration are in doubt. Two-fifths of the universities in this elite group (29) have dropped ranks.

In a statement, AMU Vice Chancellor, Professor Tariq Mansoor said that the university is proud to claim the top spot in the Times Higher Education World University Rankings. He said rankings suggest that AMU is one of the most prestigious universities with very high entry standards. AMU attracts very students from all over the country and the world.

Government refuses IIT Funding of Rs 8700 Cr., asks IITs to address 'fundamental issues first

<http://www.timesnownews.com/education/article/government-refuses-iit-funding-of-rs-8700-cr-asks-iits-to-address-fundamental-issues-first/87545>

The Finance Ministry has refused to grant the in-principal approval to Ministry of Human Resource Development's request for allotment of the fund promised for enhancement of the global standards of IITs. A budgetary provision was announced by the Government of Rs. 1250 crore to the 7 premier IITs in an effort to enhance the level of education at these institutes. The amount was to be dispersed over a period of 5 years to facilitate improvement of facilities and hiring global lecturers. The request of MHRD to release the funds, however, were summarily rejected by the Finance Ministry, as reported by Hindustan Times.

The reports suggest that the project, titled Vishwajeet was rejected with a note that asked the IITs to first address the 'fundamental issue'. The purpose of the project was to enhance the quality of education at the premier institutes in the country and also improve their world university rankings. Even though Indian universities slipped further this year in the Times Higher Education World University Rankings 2017. The report notes that the finance ministry has highlighted issues like autonomy to fix fees, raising resources from corporate houses and alumni members along with strengthening the existing schemes.

The Finance Ministry has also suggested the IITs to instead compete for the Institute of Eminence Scheme. Under the scheme, 10 government institutes would be selected and given approximately Rs. 1000 crores. The sources have also suggested that the letter has asked IITs to compete for the funds rather than expect them to be given under the Vishwajeet project.

The IIT Council which had cleared the Vishwajeet project last year and listed IIT Delhi, Bombay, Madras, Kharagpur, Kanpur, Roorkee and Guwahati as its benefactors. The rejection from the government, however, comes as a setback to the institutions. More so when either of the IITs failed to make it to the Top 200 World University rankings. The top Indian University/ institute was Indian Institute of Science, which had also slipped to the 251 – 300 ranks. None of the IITs made it to the Top 300.

Plan for universities to hold jobs for foreign faculty

<http://www.universityworldnews.com/article.php?story=20170908075806409>

India wants to hire more foreign academics to boost the position of its higher

education institutions in international university rankings. But proposals for one-fifth of the faculty body to be drawn from overseas have met with local opposition as universities are concerned they will be left to fund foreign academics without any increase in their budgets.

Invitations are already being sent out to foreign academics who might be interested in short teaching stints under India's Global Initiative of Academic Networks or GIAN project.

Apart from that, the top universities known as category one institutions – the top 50 universities in India's national rankings – will be required by the University Grants Commission or UGC, the higher education regulatory body, to reserve 20% of faculty positions for foreign academics hired for longer terms.

The proposal was included in a recent draft regulation sent to universities for consultation in June.

According to India's Human Resource Development Minister Prakash Javadekar, taking on foreign academics would raise institutions in international rankings, as one of the indicators is the proportion of foreign faculty in each institution.

Foreign professors would also help increase the number of foreign researchers and students as part of the government's internationalisation plan. The government is also proposing to set up 20 world-class universities – 10 private and 10 public, known as institutions of eminence, offering world-class academic infrastructure and courses.

There is some evidence that institutions already hiring foreign academics are climbing in international rankings. These include the Indian Institute of Technology Bombay or IIT Bombay and IIT Delhi, which were in the top 200 of the latest QS World University Rankings.

Several IITs said they were actively seeking to recruit from universities in the United Kingdom, United States, Australia and Canada.

Institutional autonomy

Controversially, the UGC regulations require each institution to negotiate the salaries for foreign faculty members and pick up the bill themselves, as part of the proposed increased autonomy of category one institutions to determine tuition fees and faculty salaries, allowing them to pay competitive salaries to attract foreign faculty and retain them.

But Ajay K Mehra, director at the Centre for Public Affairs, New Delhi, says the draft UGC regulations reflect a mandate from the finance ministry for higher education institutions to raise 30% of their own funding.

“This is a backdoor exit for the government. Hiring 20% of faculty strength with their own resources effectively means a 20% cut in UGC funding,” Mehra said.

Others see this as creeping privatisation of the universities with the funding for such posts having to be drawn from student fees.

So far, the government has not indicated what ‘foreign faculty’ means – Indians nationals with foreign degrees, Indian nationals with foreign degrees and foreign passports, or foreign nationals. This could have implications for negotiating salaries and there are fears that differential treatment could lead to charges of discrimination or even racism if non-Indians receive higher salaries in order to attract them.

M Rajivlochan, member of Punjab State Higher Education Council, said the IITs, for example, were wary of hiring academics, foreign or otherwise, on a permanent basis, as they are impossible to fire if they do not perform well. A foreign degree “is no guarantee that you will get a good quality academic”, Rajivlochan said.

Opposition to permanent staff

“There’s no harm in inviting foreign academics as long as they are on short-term contracts but there could be practical problems if they are hired on a long-term basis,” says Saket Bahuguna, national spokesperson for the Akhil Bharatiya Vidyarthi Parishad, the influential student wing of the ruling Bharatiya Janata Party.

Foreign faculty could be a temporary stopgap for a serious shortage of qualified faculty at top institutions, he said, adding: “There is no dearth of talent in our country and we certainly cannot be relying only on foreigners to fill up the large number of vacant posts – a situation created by years of administrative lapses.”

Hiring foreign faculty has been touted as a way to bridge the shortage of faculty at many institutions that has been a concern for some years. Addressing an international conference on the ‘Internationalisation of Higher Education’ in April, Javadekar said nearly 40% of faculty positions at the prestigious IITs and universities run by the central government were lying vacant.

However, the Delhi University Teachers’ Association, in a formal statement, declared the regulations to be “an unacceptable assault on the younger generation of postgraduates who are already suffering from years of contractual and ad hoc employment and lack of job security due to insincere and inadequate initiative in the filling of substantive vacant posts”.

Predicting the plan will end up “curtailing and discouraging local talent at the national and state levels even further”, the Delhi University Teachers’ Association said the UGC should increase funding allocations to allow permanent faculty to be hired rather than bringing in foreigners on contracts. It has called on university

teachers to reject the draft regulations.

IIT Delhi comes up with presentation to solve city's waste woes

<http://www.financialexpress.com/india-news/iit-delhi-comes-up-with-presentation-to-solve-citys-waste-woes/846256/>

IIT Delhi and industry expert on Thursday made a presentation to Delhi Lieutenant Governor Anil Bajjal and CM Arvind Kejriwal to find a solution to the city's waste problem.



Earlier, Delhi government has proposed to allot a land to the North MCD for a waste-to-energy plant at a vegetable market in Narela, Kejriwal government is yet to find a solution to the city's waste problem.

IIT Delhi and industry expert on Thursday made a presentation to Delhi Lieutenant Governor Anil Bajjal and CM Arvind Kejriwal to find a solution to the city's waste problem. Earlier, Delhi government has proposed to allot a land to the North MCD for a waste-to-energy plant at a vegetable market in Narela, Kejriwal government is yet to find a solution to the city's waste problem. Anil Bajjal in a statement had mentioned that the landfills at Bhalswa and Okhla will be going through a "greening after grading their slopes" procedure and the work will be done under the guidance of 'experts to take care of any contingencies,' according to Indian Express reports.

L-G Anil Bajjal further said that for Ghazipur the National Highways Authority of India (NHAI) will take the work of garbage segregation in mid-November. " The NHAI "undertake the work of segregation and utilisation of garbage from mid-November for utilisation in its road project," he said. The officials will meet their counterparts of North MCD on Friday for the government's plan proposed that "the vegetable market in Narela be allotted as waste-to-energy plant to clear piling garbage."

Professor Manoj Datta of IIT-Delhi in a mneeting explained measures to improve the stability of garbage mounds such as flattening the slope, removing liquid from them and gas. Survey and case studies from Gorai (Maharashtra), Vapi (Gujarat) and Hyderabad (Telangana) were cited as an example. The implementation of the required measures would take somewhere between nine to 18

months, according to the statement. Delhi Jal Board CEO Keshav Chandra also cited ways in which the problem of garbage dump can be tackled.

IIT-Indore presents its maiden ‘Incubation Centre & Centre for Excellence’

<http://www.freepressjournal.in/indore/iit-indore-presents-its-maiden-incubation-centre-centre-for-excellence/1133550>



Indore: Indian Institute of Technology Indore presented ‘Incubation Centre & Centre for Excellence’ during its fifth annual Industry Academic Conclave (IAC) held on Wednesday. Director of IIT Indore, Prof Pradeep Mathur in his address emphasised on the role of IIT as a catalyst in this simultaneous growth of industry and academia, especially long term growth and inviting application for setting up centre of excellence at IIT Indore.

Since its inception in 2012, Industry-Academia Conclave has evolved into a forum where experts from both industry and academia discuss and address important concerns, and galvanise their efforts towards forging successful partnerships. IAC 2017, as an endeavour, focuses on exploring research avenues between academic institutions and corporate organisations.

The theme of this year’s conclave was: ‘Possibilities for Tomorrow’. IAC 2017 also presented an ‘Innovation Pavilion’ where innovators from all over India are given a chance to exhibit their products on one of the most prestigious platforms for industry-academia interaction. IAC 2017, for the first time, presented an ‘Incubation Centre & Centre for Excellence’ where younger ideas were invited and a base was set for the technology of future.

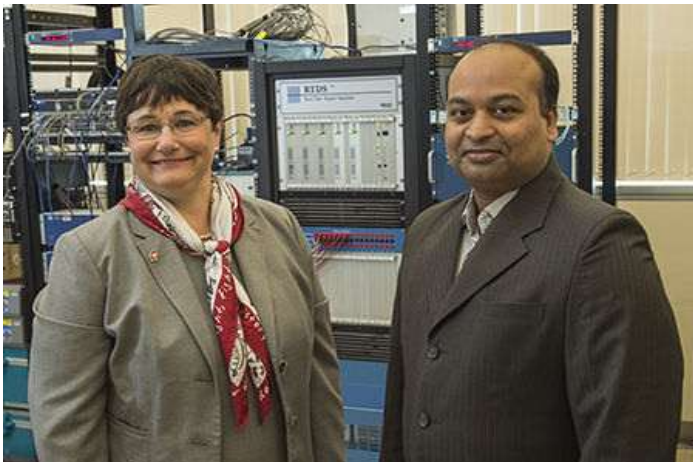
This year’s IAC witnessed six new startups, more than 60 research facilities and posters, 13 prototypes, 18 technical talks, a panel discussion, and a reinvented incubator and over a dozen sponsorships. It beckoned a footfall of over 350 people. This edition of the IAC saw an influx of powerful speakers, who talked about how governmental educational institutes and the industry can interact so that the industry and academia can evolve together. Chief guest, Gurjit Singh, the former Indian ambassador to Germany, talked about his prior experiences dealing with the overlap of industry and academia in Ethiopia and Japan.

Convener of the industry relations team, Dr Vimal Bhatia initiated the session by talking about importance of IAC and how it has grown over the years. Global Category head of technology and applications at Keva Fragrance Innovation, Dr Debojit Chakraborty spoke about the interest of private organizations in academic research. Dr Kumar B Salui from ANSYS, India talked about implications of modern research in the field of computer aided simulations, and its usage in autonomous vehicles and efficient industrial production.

Sandeep Saxena from TCS, Mumbai predicted the exponential growth of digital data in the near future and its management and utility. He briefly touched on the urgent need to create a more efficient workspace for employees and researchers. IAC plays a vital role as a forum for such industry-academia interaction, and also provides an opportunity for the Industry to present areas where they would seek research assistance from the academia. The industry could also benefit from the knowledge of the on-going R&D projects, and could then actively participate in those that might interest them. The exchange of perspectives between the industry personnel and the academia can provide an impetus for various research and development opportunities; it could later lead to efficient and holistic industrial processes.

Washington State University to Lead \$30M International Partnership with India

http://www.indiawest.com/news/business/washington-state-university-to-lead-m-international-partnership-with-india/article_f4afb0c6-94e8-11e7-abe4-877d696ab26f.html



Washington State University recently announced it will lead a nationwide consortium of U.S. universities and industry partners in a five-year, \$30 million joint research project with India. Indian American Anurag Srivastava (right), associate professor at the university; and Noel Schulz will lead the U.S. team as technical leader and principal investigator, respectively. The ultimate goal is “To bridge the gap between smart grid, storage and renewable energy research,” Srivastava told India-West.

Washington State University announced last month that it will be the U.S. lead of a consortium of nationwide universities and industry partners in a five-year joint research project with India, Indian American Prof. Anurag Srivastava serving as the technical leader.

The \$30 million project, announced recently in a university news release, aims at advancing the development of the power grid in both the U.S. and India.

The U.S. Department of Energy June 21 announced a \$7.5 million grant to the U.S. team, which will be supplemented by \$7.5 million from consortium members, according to the university news release.

The Indian Ministry of Science and Technology and industry partners will match the \$15 million, bringing the total to \$30 million.

The initiative, supported by the DOE Office of Electricity Delivery and Energy Reliability, builds on the department's efforts to foster the reliable, resilient, and secure delivery of electricity needed for U.S. national security, economic growth, and global leadership, according to a statement.

The pact also furthers DOE's collaboration with India under the U.S.-India Partnership to Advance Clean Energy, it said.

In addition to WSU, the U.S. team is comprised of researchers from MIT, Texas A&M, Hawaii Natural Energy Institute, Idaho National Laboratory, Lawrence Berkeley National Lab, Snohomish County Public Utility District in Everett, Wash.; AVISTA Utilities in Spokane, Wash.; Burns and McDonnell, ETAP Operation Technology Inc., National Rural Electric Cooperative Association, GE Grid Solutions in Seattle, Wash.; Clean Energy Storage Inc., ABB Inc. and the Philadelphia Navy Yard.

The Indian team, led by the Indian Institute of Technology in Kanpur, comprises IIT institutions in Delhi, Madras, Roorkee and Bhubaneswar; the Energy and Resources Institute, NTPC Energy Technology Alliance, BSES Rajdhani Power Ltd., UP Power Corporation Limited, Power Grid Corporation of India, Customized Energy Solution in Pune, GE Global Research in Bangalore, Synergy Systems and Solutions in Gurgaon, Bangalore-based Mindteck, and Panasonic India.

"This new consortium demonstrates U.S. and Indian commitments to ensuring access to affordable and reliable energy in both countries," said U.S. Energy Secretary Rick Perry in a statement. "We know that continued grid innovation will promote economic growth and energy security in the United States and India."

Noel Schulz, professor in WSU's School of Electrical Engineering and Computer Science, will serve as the principal investigator for the U.S. team. Anurag Srivastava, an associate professor at the EECS school, is the U.S. technical leader.

Additionally, three other WSU faculty members — Anjan Bose and Adam Hahn of EECS and Christine Horne of the sociology department — are involved in the project.

"WSU is excited to lead the U.S. team and collaborate with colleagues across this country and India to tackle the challenges of integrating renewables and storage for tomorrow's distribution power

systems,” Schulz said in the university release. “This project leverages the strengths of WSU’s Energy Systems Innovation Center and our power faculty and will provide national and international collaborations as we continue to advance our ‘Drive to 25’ to become one of the nation’s leading public research universities,” she said.

Srivastava told India-West in an email that the collaboration objectives are “to develop new algorithms and tools for adoption, integration and management of Distributed Energy Resources into electric distribution system as well as to demonstrate the developed concepts using testbeds and pilot field projects for better efficiency, reliability, economics and environmental impact at the system level.”

The associate professor added, “Tools need to be developed for better situational awareness and control of renewable energy sources and energy storage deployed within microgrids or in distribution system. Addressing socio-political issues, workforce development and cyber security is equally important in managing DERs at the Distribution Management System and will be addressed in this project.”

The new consortia bring together experts from academia, DOE national laboratories and industry in India and the U.S. to evolve and advance the future electric power distribution grid.

The effort will allow the continuing increase and integration of distributed energy resources penetration, such as solar, wind, storage, and electric vehicles, advancing the goal of creating a carbon-free electricity system, according to the release.

The project will allow experts to conduct research and deploy new smart grid and energy storage technologies that will modernize the grids of both nations to make them “smarter,” while increasing resilience and reliability.

Ultimately, Srivastava said, the goal is “To bridge the gap between smart grid, storage and renewable energy research and facilitate its subsequent adoption by utilities around the world in their distribution system operation and planning with ultimate goal to evolve the future distribution grid that will allow the continuing increase of Distributed Energy Resources penetration towards a carbon-free and efficient electricity system,” he told India-West.

The U.S. team will contribute its expertise and capabilities as India expands energy access to its remote areas, improves its grid reliability and resilience, and strengthens its energy security, the university statement said.

In turn, U.S. participants will gain insight from India’s grid modernization efforts as well as promote the access of researchers to India’s grid operational experience, it added.

Srivastava is an associate professor of electric power engineering at Washington State University and the director of the Smart Grid Demonstration and Research Investigation Lab.

In past years, he has worked in different capacity at the Réseau de transport d'électricité in France, RWTH Aachen University in Germany, the Idaho National Laboratory, Pacific Northwest National Lab, PJM Interconnection, Schweitzer Engineering Lab, GE Grid Solutions, Massachusetts Institute of Technology and Mississippi State University in U.S., IIT Kanpur in India, as well as at the Asian Institute of Technology in Thailand.

He received his doctorate degree in electrical engineering from the Illinois Institute of Technology in 2005.

September 7

Government moves to change selection procedure for IIT directors

<http://indianexpress.com/article/education/government-moves-to-change-selection-procedure-for-iit-directors-4832165/>

The proposal will need HRD Minister Prakash Javadekar's nod and might even have to be placed before the next IIT Council meeting for approval. Javadekar is the chairman of the council, the highest decision making body for all 23 IITs.

The government has proposed to make the selection of incumbent IIT directors competitive if they want a second term, four years after the previous UPA dispensation gave serving directors the opportunity for a second term without being pitted against competitors. Under the policy now, the government asks the incumbent director of an IIT a few months before his term ends if he is interested in continuing for another five years. If so, the incumbent's first term is evaluated by a search-cum-selection committee and he is reappointed if the performance is assessed as outstanding.

In such a scenario, the post is not advertised as vacant and the director does not compete with other candidates for the job.

The Indian Express has learnt that the government is keen to change the current selection process and fill up director's post only through advertisements, which was the norm before September 2013. A proposal to this effect has been moved in the HRD Ministry. "The current selection process is not objective," said a ministry source.

According to sources, the proposal will need HRD Minister Prakash Javadekar's nod and might even have to be placed before the next IIT Council meeting for approval. Javadekar is the chairman of the council, the highest decision making body for all 23 IITs. After September 2013, the government has reappointed directors of five IITs — Bombay (Devang Khakhar), Hyderabad (U B Desai), Gandhinagar

(S K Jain), Madras (Bhaskar Ramamurthi) and Indore (Pradeep Mathur) — for a second term without inviting applications. This was justified on the ground that it would provide the institutes more stability.

The change in the selection procedure has been mooted at a time when the government has kickstarted the appointment process for IIT-Dhanbad (formerly ISM Dhanbad) and IIT Kanpur. IIT Dhanbad director D C Panigrahi and Kanpur director Indranil Manna had expressed interest in a second term. The search committee had visited the Dhanbad institute and reviewed Panigrahi's performance but hasn't made any recommendation. Manna is learnt to have written to the government withdrawing his consent for a second term.

UGC Drafts New Policy to Check Plagiarism in Academic Research

<http://www.ndtv.com/education/ugc-drafts-new-policy-to-check-plagiarism-in-academic-research-1745424>

The University Grants Commission (UGC) has released the Draft UGC (Promotion of Academic Integrity and Prevention of Plagiarism in Higher Education Institutions) Regulations, 2017. As the name suggests, the aim of the draft is to create academic awareness about responsible conduct of research and prevention of misconduct including plagiarism in academic writing.

NEW DELHI: The University Grants Commission (UGC) has released the Draft UGC (Promotion of Academic Integrity and Prevention of Plagiarism in Higher Education Institutions) Regulations, 2017. As the name suggests, the aim of the draft is to create academic awareness about responsible conduct of research and prevention of misconduct including plagiarism in academic writing. The draft also seeks to establish institutional mechanism for promotion of academic integrity and develop systems to detect and prevent plagiarism.

The draft directs every Higher Education Institute to instruct students, faculty, and staff about proper attribution, seeking permission of the author wherever necessary, acknowledgement of source compatible with the needs and specificities of disciplines and in accordance with rules and regulations governing the source.

The Higher Education Institutes are also required to conduct sensitization seminars and awareness programmes on responsible conduct of research, project work, assignment, thesis, dissertation, promotion of academic integrity and ethics in education for students, faculty and other members of academic staff.

The institutes have also been instructed to implement adequate software and other mechanisms which would ensure that thesis, dissertation or any other such documents submitted are free of plagiarism.

Students in their turn are also required to submit an undertaking that the document has been prepared by him/her and is an original work free of any plagiarism.

Institutes are also required to develop a policy on plagiarism and get it approved by the relevant statutory body of the University. The Institutes are also required to submit soft copies of all M.Phil. and PhD dissertations on INFLIBNET.

The Institutes have also been asked to form an Academic Misconduct Panel (AMP) to investigate any allegation of plagiarism and submit report to the Plagiarism Disciplinary Authority (PDA) of the concerned institute.

The detailed draft is available on the UGC website and stakeholders can submit a feedback on the same to UGC on pgmhei.2017@gmail.com on or before 30 September 2017.

September 6

IIT students launch Young Innovators prog for school students

<http://indiatoday.intoday.in/story/iit-students-launch-young-innovators-prog-for-school-students/1/1042356.html>

Kolkata, Sep 6 (PTI) Students from IIT Kharagpur are organizing a pan India competition on technology ideation for young innovators from schools.

The Young Innovators? Programme (YIP) is a platform to foster young minds belonging to the 8th to the 10th classes with scientific quest and inspire them to ideate new solutions of technological challenges currently faced in the world.

The competition will be covering key area such as energy, agriculture and food sciences, environment, hardware modelling, product designing and BioTech, an IIT-KGP spokesperson said.

The competition has three rounds.

While proposals from about 250 teams comprising 600 students from across India were considered for evaluation, 60 teams were shortlisted for the second round based on the concept note of the project prepared by the students.

In the second round, the students will be presenting detailed project synopsis based on which selection for the final round will be made.

?We are amazed to see how students have used their scientific knowledge to apply these for real-life problems and come up with technological propositions such as automatic writing pen, device for persons with disabilities, agricultural drone, horticultural treatment of sewage, drying-agent cooler for CFC emission,? Debanjan Nayak, a 4th year student from the Branding and Relations Cell, a student group conducting this competition, said.

The final round is scheduled to be held on October 4 this year at the IIT Kharagpur campus.

The finalists will get the opportunity to present their projects in front of distinguished researchers from among the faculty and alumni of the institute.

The finalists would be required to prepare a model to demonstrate their ideas and proposed solutions to the taken up problem.

The teams capable of presenting a lucid and achievable demonstration of their ideas would take away the prizes," another IIT-KGP student from the organising team Souvik Bhowmik said.

Professor Baidurya Bhattacharya, Associate Dean at IIT-KGP said, IIT Kharagpur's main aim is to develop every student's interest towards research, right from young age. Hence, we are conducting this Young Innovators? Programme, promoting the enthusiasm for research in the country." PTI SUS JM

September 5

Focus on producing quality teachers must to transform India, says academician Prof Sharma

<https://news.webindia123.com/news/articles/India/20170905/3181023.html>

Eminent academician and President of Association of Indian Universities Prof PB Sharma today urged the Government to pay the highest attention to creating an illustrious clan of teaching faculty for the country's 800 plus Universities and 45,000 Colleges currently facing a severe shortage of teachers.

Using the occasion of Teachers Day, Dr Sharma, underlined the need of serious introspection on the way of recruitment of teachers and even of the vice chancellors for universities and colleges was done.

"It is not just the qualifications but the creative ability, ingenuity and innovativeness along with intent and attitude that matters most when it comes to nurturing talent, imparting competence and building character in the student community," said Prof Sharma who himself has been a Professor in IIT Delhi and founder Vice Chancellor of DTU and RGTU. He is currently also vice chancellor of Amity University.

He pointed out that one of the basic problems, in the later part of the post independence India, especially after the globalization in 1991, had been that the teaching profession was relegated to be the least preferred choice of the meritorious graduates who being largely unaware of the nobility of teaching profession preferred more lucrative positions in corporate and industry.

The irreparable damage was further caused by the unabated expansion of the education sector that allowed mushrooming growth of colleges and universities without care and concerns for quality of faculty, he said.

The teacher's day should give a wake up call to the government and those in the management of colleges and universities in India to mount a serious exercise of faculty search, to attract the very best minds of teachers, if need be, from beyond the national borders as Dr Sarvepalli Radhakrishnan himself has stated "Teachers should be the best minds in the country", Dr Sharma said.

"Unfortunately, we have not learnt much from the best practices followed in the world class universities of the advanced countries like US, UK and Europe, nor from our Asian giants like Singapore and Japan where greatest care is taken for attracting the best minds for faculty and then driving them

on the top of their performance by the peer pressure during annual reviews," he said.

He pointed out that in the American universities 8-9 years of sustained high performance by a faculty, duly certified by both the peers and the students, is necessary to earn a tenure track position of professorship, whereas compared to this, most Indian Universities and Colleges still continue with the age old system of confirmation of faculty after one or maximum two years of probation.

Dr Sharma called for making education and research relevant to the needs of the society and industry, which requires aligning research and innovations to solving the pressing problems such as, environmental health, solid waste management, waste water processing, cleaning of rivers and water bodies, clean energy and green transport technologies etc.

"We need education for creating employment, including self employment in plenty by accelerating startups in our colleges and universities to meet the aspirations of our 1.32 billion people in this country. We can do it but we need radical shift in our approach to education and research. The focus shall then shift from knowledge, (gyana) to capabilities, (hunar)," he said.