

Newspaper Clips December 16-22, 2017

December 22

शिक्षा से ही पूरे होंगे संविधान के सपने-मनीष सिसौदिया

<https://www.livehindustan.com/ncr/new-delhi/story-manish-sisodia-constitutional-dream-will-be-fulfilled-only-by-education-manish-sisodia-1709134.html>

नई दिल्ली। मुख्य संवाददातासंविधान के सपनों को पूरा करने वाली शिक्षा ही गुणवत्ता वाली शिक्षा है। हमें यह तय करना चाहिए कि शिक्षा क्यों जरूरी है। शिक्षा विभाग से लेकर अभिभावक और शिक्षकों को यह सोचना चाहिए। यह बात शिक्षा मंत्री मनीष सिसौदिया ने गुरुवार को आईआईटी में आयोजित एक इंटरनेशनल कांफ्रेंस में कही। इस दौरान उन्होंने सात सौ से ज्यादा स्कूलों के प्रधानाचार्यों को संबोधित किया। सिसौदिया ने कहा कि हमारा सपना छात्रों को गुणवत्ता वाली शिक्षा देना है। एक्सीलेस इन स्कूल एजुकेशन विषय पर गुरुवार को इंडियन इंस्टीट्यूट ऑफ टेक्नोलॉजी (आईआईटी), दिल्ली में आयोजित एक इंटरनेशनल कांफ्रेंस में दिल्ली के उप-मुख्यमंत्री और शिक्षा मंत्री मनीष सिसौदिया ने कहा कि मानव जाति के लिए इससे बढ़िया सपना और कुछ नहीं हो सकता जो हमने अपनी संविधान की संकल्पना में लिखा है। मैं इसे मोबाइल में रखता हूं। सरकार चलाने में जब हमारे सामने अड़चनें आती हैं, तब इसे जरूर पढ़ लेता हूं। इससे मुझे प्रेरणा मिलती है। सिसौदिया ने कहा कि संविधान की ये बातें थाने के सामने नहीं लिखी जातीं, जेल में भी नहीं लिखी जातीं, अवॉर्ड कार्यक्रमों में भी इसे नहीं लिखा जाता। इन्हें हमारे बच्चों की किताबों में लिखा जाता है तो इसका कुछ उद्देश्य है। हमें इस उद्देश्य को समझना होगा। हम बच्चों को फिजिक्स, केमिस्ट्री, हिंदी, अंग्रेजी जो भी पढ़ाएं लेकिन शिक्षक के दिमाग में इसको लेकर स्पष्टता होनी चाहिए। एक शिक्षक के दिमाग में स्पष्ट होना चाहिए कि अगर मैं एटॉमिक एनर्जी पढ़ा रहा हूं तो उसका संविधान की संकल्पना में लिखे सपने को सच करने से क्या लेना-देना है। स्पष्टता होगी तो वो इसे जरूर पूरा कर पाएगा।

लॉन्च हुआ जेईई एडवांस का मॉक टेस्ट पोर्टल, जानिए आपके लिए कैसे है फायदेमंद

<https://www.livehindustan.com/career/story-jee-mock-test-portal-launched-1708306.html>



आईआईटी कानपुर ने संयुक्त प्रवेश परीक्षा जेईई एडवांस, 2018 के पहले छात्र-छात्राओं की तैयारियों के लिए मॉक टेस्ट पोर्टल लॉन्च किया है। छात्र जेईई एडवांस की आधिकारिक वेबसाइट www.jeeadv.ac.in पर जाकर 180 मिनट का मॉक टेस्ट दे सकते हैं। आईआईटी कानपुर के कार्यवाहक निदेशक मणींद्र अग्रवाल ने बताया कि कंप्यूटर आधारित जेईई एडवांस एग्जाम देने में स्टूडेंट्स को किसी दिक्कत से बचाने के लिए यह पहल की गई है।

मॉक टेस्ट में सवाल और जवाब देने के तरीकों को समझा जा सकेगा। भाषा हिंदी और अंग्रेजी होगी। हर सवाल के जवाब के लिए 5 विकल्प होंगे। जेईई मेन्स पास करने वाले 2 लाख 24 हजार छात्र ही एडवांस्ड एग्जाम दे सकेंगे। मुख्य एग्जाम देने के लिए छात्रों को लॉग-इन आईडी और पासवर्ड कंप्यूटर में दर्ज करने होंगे। रोल नंबर आईडी का काम करेगा, जबकि डेट ऑफ बर्थ पासवर्ड होगी। एग्जाम के दौरान हर छात्र को पूरे 180 मिनट मिलेंगे। माउस या किसी अन्य तकनीकी खराबी के कारण दिक्कत आती है तो समय की गणना रुक जाएगी। तकनीकी दिक्कत दूर होते ही काउंटिंग फिर शुरू होगी। एक बार किसी सवाल का जवाब देने के बाद इसे बदला भी जा सकेगा। छात्र-छात्राओं को ज्यादा बेहतर तरीके से जानकारी देने के लिए कुछ विडियो अगले कुछ दिनों में साइट पर अपलोड किए जाएंगे।

JEE Advance to go fully online; students will have option to change answers

<http://www.newindianexpress.com/nation/2017/dec/21/jee-advance-to-go-fully-online-students-will-have-option-to-change-answers-1733824.html>



NEW DELHI: All students appearing for Joint Entrance Examination-Advance in 2018, for the first time, will have an opportunity to change their answers as the examination is set to be conducted only in fully computer based test (CBT) mode.

IIT-Kanpur, the organising institute for the entrance test for admissions into the prestigious IITs, Indian Institute of Science, Indian Institute of Science Education and Research and Rajiv Gandhi Institute of Petroleum Technology will conduct the test on May 20 next year.

Till this year, JEE-Advanced was conducted only in offline mode.

The performance of over 2.24 lakh students, who will take up the examination, will form the basis for admission to the 11,032 seats of Bachelor's, Integrated Master's and Dual Degree programs in all the 23 IITs.

Sources in the JEE division of IIT-Kanpur said that students who have cleared the JEE-Mains, conducted by the Central Board of Secondary Education, will be trained to use CBT system for JEE Advance through mock tests, for which a special website has been launched on Tuesday.

Interestingly, JEE Main is conducted in both online and offline mode and the students have an option of choosing any form they are comfortable with.

"The online mode of examination is being introduced to make logistics and evaluation process easy. Candidates who do not have access to desktops can even practice on their smart phones," a senior official at IIT Kanpur told this newspaper. "The examination will start at 9 am and the computer screen will automatically show-I am ready to begin."

In case the candidates need to change their option, they will be able to do it using the mouse at the designated centres. In case of any terminal problem, the computer will stop and the watch at the computer screen will also automatically get stopped.

Later, the candidates will be given extra time as per the time loss shown by the computer watch, said Misra. There would be three sections -- mathematics, physics and chemistry -- and each section will get closed after the completion of one section. Candidates could also revise the answer sheets.

At present the JEE Advance test, has a question paper with Optical Mark Reading (OMR) sheets with 'block' in front of every question. The candidates are required to put right mark in the "block" which cannot be changed.

Aerosol pollution on the rise, but no equipment in Hyderabad to detect it

<https://timesofindia.indiatimes.com/city/hyderabad/aerosol-pollution-on-the-rise-but-no-equipment-in-hyderabad-to-detect-it/articleshow/62202439.cms>



HYDERABAD: The India Meteorological Department Hyderabad has no equipment or systems to detect aerosol levels and black carbon in the air even though it is part of its citizen charter. Neither does the Telangana Pollution Control Board.

IMD has launched the service in several parts of the country, but not in Hyderabad, though it has been proved that black carbon aerosols affect monsoon patterns everywhere. Aerosols contain gases, fumes and dust in harmful proportions.

Confirming this to TOI, IMD Hyderabad director YK Reddy said: "We don't have aerosol level monitoring equipment in Hyderabad. However, a few metros in the country do have this facility."

NO WAY TO MEASURE IMPACT

Aerosols are sub-micron particles suspended in air. They are produced from man-made and natural processes and are mostly restricted to first few kilometres from the Earth's surface

DIFFERENT KINDS OF AEROSOLS

Volcanic : Formed after major volcanic eruptions	Human-made aerosol : Smoke from burning tropical forests and sulfate aerosols created by burning of coal and oil
Desert Dust : Dust veils streaming out over the Atlantic Ocean from the deserts of North Africa	

EFFECTS

- Sulfate aerosols absorb no sunlight and reflect it, reducing the amount of sunlight reaching the Earth. They also cause the haze conditions often reported in cities
- They enter clouds, thereby making clouds reflect more sunlight than normal
- Aerosol pollution is expected to have an effect on climate. While the warming effect of greenhouse gases is expected to take place everywhere, the cooling effect due to aerosols will be region-dependent. Outcome of this is not yet known



Black carbon aerosols are the strongest tiny particles formed due to inefficient burning of fossil fuels, bio-fuels and bio-mass. IIT Kanpur scientists have found that aerosol affect monsoon patterns.

In January 2016, the ministry of science & technology and earth sciences dedicated to the nation the System of Aerosol Monitoring And Research (SAMAR), a network of 16 aethalometers, 12 sky radiometers and 12 nephelometers to study black-carbon concentration, aerosol radiative properties, environmental visibility and climatological impacts.

According to an IIT Delhi study, there has been a rapid increase in aerosol levels at hotspots across the country over the last decade. These have severe implications for regional climate and human health. It is also associated with formation of haze.

According to Telangana PCB chief scientific officer P Veeranna: "As per the notified rules of ambient air quality, aerosols are not included. We are monitoring particulate and gaseous pollution. Actually, all other pollutions combine to form aerosols."

IIT-B unveils 47th Mood Indigo in Powai today

<http://www.dnaindia.com/mumbai/report-iit-b-unveils-47th-mood-indigo-in-powai-today-2569602>



Mood Indigo Last year, 1,39,000 students from across the country attended the festival

IIT Bombay is gearing up to host the 47th edition of Mood Indigo, its annual cultural festival, from December 22 to 25. Started in 1971 by a group of four students on a budget of Rs 5,000, MoodI, as it is affectionately called, has grown to become Asia's largest cultural festival. Last year, the college opened its gates to over 1,39,000 students attending the fest from more than 1,700 colleges nationwide.

In its attempt to give back to society, Mood Indigo takes up a social cause every year. This year, the fest is championing the expansion of stem-cell donor registry through its initiative 'Swab to Save'. Mood Indigo organised camps in cities across India where swab samples from people were collected. In order to generate awareness about the drive, the IIT Bombay Half-Marathon is being organised in the college campus.

The 2017 edition of the festival is slated to be a celebration of celebrations itself. With the theme, La Fête Carnival, the festival is going to bring in elements from carnivals all around the world. The entire campus will be decked with paintings and installations to welcome visitors. Jester masks, carousels, aerial dragons, and masquerade masks provide an authentic touch to this four-day experience. One can also expect to see fire performers and jugglers entertaining the crowds.

This year will also mark the debut of the Illusion Fest, where magicians and illusionists from all around the world will converge at the Powai campus to enthrall the audience. This year, actor Akshay Kumar will visit the campus on December 22 for the promotions of his upcoming movie, Padman.

The fest will also see stalwarts from various fields interacting with college students through panel discussions. This year's International Music Festival will also welcome talents from countries like Israel and Denmark.

Having proved their mettle at the regional level, the four days will see the best college teams from all over India vying it out for top honours and prizes worth Rs 8,50,000. The competitions are spread across various cultural genres such as literary arts, dramatics, music, dance, and various other performing and non-performing arts.

IISc. scientists create hybrid transistor device

<http://www.thehindu.com/news/cities/bangalore/iisc-scientists-create-hybrid-transistor-device/article22185341.ece>

In a first, scientists at the Indian Institute of Science (IISc.) have combined two different types of transistors — MOSFETs (Metal Oxide Semiconductor Field Effect Transistor) and tunnel FETs (Field Effect Transistor) — into a single device that can easily switch between power efficient and high performance modes, depending on the need.

The device has a special type of metal-semiconductor junction, which can be tweaked to make it behave either like a MOSFET or a tunnel FET.

The hybrid variety is an answer to issues that the most common MOSFETs have, that of being unable to bring down the supply voltage for MOSFETs proportionately with transistor size, because of a fundamental design flaw.

To overcome this, the tunnel FETs are being used. But they also have a disadvantage: the desired output — the current flowing when the transistor is on — is greatly reduced.

The hybrid device is capable of switching between MOSFET and tunnel FET modes using two gates instead of one, and a special type of electron barrier called Schottky junction. The Schottky barrier is created when a metal and semiconductor are joined under certain conditions.

According to a release, the dual-gated device was able to operate at a voltage lower than possible with conventional MOSFETs, greatly reducing power consumption. It also showed superior performance compared to current state-of-the-art tunnel FETs.

“You have flexibility,” says Shubhadeep Bhattacharjee, PhD student at the Centre for Nano Science and Engineering, IISc and first author of the paper published in Applied Physics Letters.

IIT Kharagpur’s gift for the elderly: Devices, solutions to monitor their health

<http://www.hindustantimes.com/education/iit-kharagpur-s-gift-for-the-elderly-devices-solutions-to-monitor-their-health/story-ZHsoNq5yVmD7m1nP1ulrNM.html>

Health venture to provide elderly support with sensors to monitor falls, heart rate, motion and pressure, integrated to a ‘sleep monitoring system’ with Android App one can monitor remotely



Products developed by OASIS are being tested in some old age homes and hospices in Varanasi.

Kolkata IIT Kharagpur has come up with a social entrepreneurial venture OASIS (Old Age Support Integrated Services) to bridge the gap between the elderly population and caregivers, a statement from the institute said on Wednesday.

OASIS is a comprehensive structure that juxtaposes an information system with health monitoring.

It aims to provide 360 degree solutions to old age health monitoring through sensors to monitor falls, heart rates, motion and pressure integrated to a 'complete sleep monitoring system' with an Android App which can be monitored remotely.

"The two pronged strategy is designed to address both the services as well as the product aspects. The existing players are presently catering to a single aspect thus leaving behind a vacuum on the other side," said Aurobinda Routray, lead researcher and founder of OASIS.

"Our aim is to position OASIS in such a way so as to bridge the existing gap and touch all the aspects via a single integrated system."

The healthcare monitoring devices are available in wearable forms like pedometer or fall sensor, in thermal sensory equipment or radar equipment or an attendance system.

"These devices will be monitoring the elderly 24x7 and send health information in real-time through a cloud information system to the caregiver or family member connected for the person under monitoring," said Anushree Basu, research scholar at IIT Kharagpur and co-founder of OASIS.

"It will also assess the risk factor and recommend next course of action based on collected data for each individual."

The venture has been co-founded by Narayan Chandra Nayak from the Indian Institute of Technology Kharagpur and Chandrashekhar Sakpal, a Mumbai-based entrepreneur.

The information system would be linked with databases of hospitals as well as doctors.

For old age homes, the system would provide access to donors and stakeholders who would be linked to the individual beneficiary so that they get regular updates on the beneficiary's health, activities and expenses.

The products are being tested in some old age homes and hospices in Varanasi.

A new LIGO gravitational wave detector to be built in India by 2025



The LIGO detectors discovered the first gravitational waves produced by two giant merging blackholes last year.

This will be the world's third LIGO detector.

A new gravitational wave detector to measure ripples in the fabric of space and time is set to be built in India by 2025, in collaboration with universities from across the globe.

The new Laser Interferometer Gravitational-Wave Observatory (LIGO) detector will add to the two already operational in the US. The LIGO detectors discovered the first gravitational waves produced by two giant merging blackholes last year. The research won a Nobel Prize in Physics this year.

The location for the new detector in India has been selected, and the acquisition has started, said Somak Raychaudhury, Director of the Inter-University Centre for Astronomy and Astrophysics (IUCAA) Pune. However, the site has not been revealed yet.

“When the detector building is completed in 2025, IUCAA will run it,” Raychaudhury told PTI. The LIGO India partnership is funded by the Science and Technology Facilities Council (STFC) through its Newton-Bhabha project on LIGO. The Raja Ramanna Centre for Advanced Technology in Indore and Institute for Plasma Research in Ahmedabad are in charge of building various parts of the system, said Raychaudhury. The mirrors and detectors required to build the system will be sent from the LIGO collaborators in the US.

A third LIGO detector will help pinpoint the origin of the gravitational waves that are detected in future. The existence of these waves were first predicted by Albert Einstein 100 years ago in his general theory of relativity.

Massive accelerating objects - such as neutron stars or black holes orbiting each other - would disrupt space-time in such a way that ‘waves’ of distorted space would radiate from the source. These ripples travel at the speed of light through the universe, carrying with them information about their origins, as well as invaluable clues to the nature of gravity itself.

An agreement was officially signed at the British Council offices in New Delhi between a consortium of universities in India, led by the IUCAA and a consortium of UK universities, led by the University of Glasgow. This collaborative programme will enable Indian scientists to work with UK institutes for extended periods of time, with reciprocal visits to the India labs to develop infrastructure and provide onsite training, essential to build the capability to deliver a LIGO-India detector.

“We need hundreds of young people who will not only be involved in building the detector, but also running it after 2025,” said Raychaudhury.

IndIGO, the Indian Initiative in Gravitational-wave Observations, is an initiative to set up advanced experimental facilities, for a multi-institutional Indian national project in gravitational-wave astronomy. The IndIGO Consortium includes Indian Institutes of Technology (IIT), Indian Institutes of Science Education and Research (IISER) and Delhi University, among others. Since 2009, the IndIGO Consortium has been involved in constructing the Indian road-map for Gravitational Wave Astronomy and a strategy towards Indian participation in realising the crucial gravitational-wave observatory in the Asia-Pacific region.

Waste to Energy: Research puts walnut shell into use as battery material

<http://www.greaterkashmir.com/news/kashmir/waste-to-energy-research-puts-walnut-shell-into-use-as-battery-material/269712.html>



In a novel idea, scientists at Pune-based Indian Institute of Science, Education and Research (IISER) are in a process to find a solution for thousands of tonnes of walnut shells left behind by growers and walnut processors in Kashmir. The idea, a brainchild of post-doctoral student Wahid Malik, who belongs to Verinag in Anantnag (Islamabad) district and currently conducting research at IISER, came into being nine months back when he was visiting Kashmir for a vacation.

Speaking to Greater Kashmir from Pune, senior scientist Satischandra Ogale, under whom Malik is working said the researchers at IISER “processed the nutshell to obtain high-quality carbon which is to be used in the anode part of the sodium-ion battery.”

“These batteries are similar to popular li-ion batteries but are expected to be much cheaper due to the few thousand-fold higher abundance of sodium over lithium in nature,” Ogale said. Battery systems are crucial for all renewable energy resource management and usage, including grid-based set ups, electric vehicles and biomedical or handheld devices, Ogale said.

According to the study of the IISER team, 63,000 hectares of land is under cultivation of walnuts in Kashmir. Of the total 36,000 tonnes of organic waste generated from the farm produce, 15,000 tonnes is contributed by walnut shells alone.

“The crushed shells are first cleansed using acids and then subjected to ‘pyrolysis’ process where it is heated at high temperatures such as 1000 degrees Celsius for about four to five hours. Later the

carbon chunks are extracted within the specially created inert atmosphere before it is powered or converted into a paste form,” Ogale said.

Ogale said a major advantage of using the nutshell is its natural composition. He said, “Walnut shell foliage suits the requirements once it is treated chemically, giving an edge over other natural resource substances.”

“Na-ion batteries are expected to be much cheaper than the lithium batteries and can make the overall setups affordable,” Ogale said. If this technique becomes commercially viable, farmers in the Valley can have an additional source of income, added Ogale.

The leftover organic waste of walnut is presently used in making packaging products which just utilizes five to ten per cent of the waste while the rest is unattended causing serious concerns to the cultivators, the researchers said. The cultivators even burn it further resulting to air pollution. “At the lab testing stage, the scientists were able to extract about 300 – 400 mg of battery grade carbon from one gram of power obtained from the shell,” Ogale said.

Zain-ul-Abideen, president, Kashmir Food Processors Association said as of now the walnut shell is being used only for cosmetic products such as face-scrubs etc but does not provide the grower enough returns. He said the breakthrough at Pune institute is “worth appreciating” and must be supported by the state governments of Maharashtra and J&K.

“The electrolytic process being undertaken by the Pune scientists can even help to address the electricity crisis in Kashmir. If it is novel and innovative, the technology needs to be brought from lab to field,” Abideen said.

Bahadur Khan, president All Kashmir Walnut Growers Association said the walnut shell till now used to be sold outside the state but there is no processing unit in Kashmir which can put the walnut waste to use.

“The news about research is quite exciting and will add value to the walnut industry,” Khan said.

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IITs see 5% decline in campus placements

<http://www.hindustantimes.com/education/iits-see-5-decline-in-campus-placements/story-reRHDVcqiXYgQnFo30Ph3N.html>

In some of the IITs there has been a sharp drop of almost 8-10% including IIT Kanpur, IIT Kharagpur among others.

Campus placement at IITs across the country has taken a hit with a 5% drop in total placements since last year.

In some of the IITs there has been a sharp drop of almost 8-10% including IIT Kanpur, IIT Kharagpur among others.

Some of the other IITs such as Delhi and Madras have reported 3-5% drop in campus placements.

According to officials, out of the 23 Indian Institutes of Technology (IITs) the campus placement took place in 17 IITs. The remaining six IITs were newly established in 2014-15 and 2015-16. Hence, the data for campus placement is not available. There are 75,000 students studying in 23 IITs in the country.

The Human Resource and Development (HRD) ministry attributes the low placement rate to prevailing market condition, preference for higher studies, renewed interest of students towards start-ups and entrepreneurship.

HT had first reported about shrinking job offers for IITians on July 19.

According to a senior HRD official, they have taken cognizance of the drop and to ensure better performance next year IITs have been asked to draw up an action plan. "A number of measures are already in place and IITs have been told to ensure that the placement cell puts in more effort to reach out to companies," said a senior HRD official.

Sources said, some of the IITs have developed career development centres that provide support to students in choosing career opportunities. "Companies that come nowadays are also looking for soft-skills in candidates apart from their command over the subject. A number of IITs have started investing in such activities which will provide an edge to their students in getting a job. Some of the IITs have performed better in the pre-placement session held this year," added the official.

IIT sources say that while the number of companies visiting IITs has increased in many cases, job offers have decreased.

"There are several reasons behind this. One of the major reasons is the global slowdown so naturally IITs have been impacted too. For instance the number of offers companies have made has come down but at the same time there are more companies that have come for placements. We are hopeful that the situation will be much better this year," said an IIT director requesting anonymity.

IIT-H prof bags award for creating e-skin

<http://www.newindianexpress.com/cities/hyderabad/2017/dec/21/iit-h-prof-bags-award-for-creating-e-skin-1733009.html>

HYDERABAD: Researchers at the Indian Institute of Technology-Hyderabad (IITH) have developed a pressure-sensitive artificial e-skin that has the potential to revolutionise the lives of burnt and acid attack victims in the country. Professor Sushmee Badhulika, along with PhD scholar Parikshit Sahatiya, has created a low-cost, biodegradable electronic skin which can be mounted on the skin that has lost functionality to recreate the sense of touch, sense pressure and can be stretched.

Dr Badhulika has been honoured with the Young Engineer award by the Indian National Academy of Engineering (INAE) in recognition of her contribution in the field of flexible and wearable nano-electronics and eco-friendly electronics. The award consists of a cash prize of `1 lakh, a citation and recognition as an INAE Young Associate till attaining 45 years of age.

The e-skin mimics the functionality of the human skin in terms of sensing even minor pressure and strain variations and is based on natural rubber which is of low cost and biodegradable. Further, the technique adapted is solvent-free thus making the fabrication simple and viable for commercialisation," she explained. From conceptualisation to execution, the entire process took the duo only about nine months. Made from natural rubber and carbon nano tube, the e-skin is an example of nanotechnology being used for durable and affordable health care in the country. Though the marketing aspect of the e-skin has not been finalised, the initial response has been encouraging," said Dr Badhulika.

What also adds on the viability of the product is that it is durable. Made from natural rubber, which has the inherent ability to stretch without losing its elasticity. With plastic surgery not being a very economically viable option in India, the e-skin has the potential to revamp the cosmetic surgery market in the country.

KRCL, IIT Bombay sign MoU to aid tunnel tech institute

<http://www.thehindu.com/news/national/karnataka/krcl-iit-bombay-sign-mou-to-aid-tunnel-tech-institute/article21964498.ece>

The George Fernandes Institute of Tunnel Technology established by Konkan Railway Corporation Ltd., at Madgaon, is set to get further strengthened with the support from Indian Institute of Technology, Bombay.

KRCL and IIT, Bombay, entered into a memorandum of understanding to this effect at Mumbai on Tuesday for technical collaboration. The corporation had already entered into an MoU with ETH Zurich, a science, technology, engineering and mathematics university in Switzerland this August.

While IIT, Bombay, is recognised worldwide for the high-quality education and for undertaking cutting edge research in various areas of science, technology, engineering, management and humanities, KRCL has been a leader in construction of transportation tunnels.

IIT Director D.V. Khakhar and KRCL Chairman and Managing Director Sanjay Gupta signed the MoU at the former's premises.

The pact seeks to develop the tunnel technology institute into a world-class premier centre of knowledge in tunnel and underground structure technologies. It also seeks to provide opportunity to UG and PG students of the IIT to gain practical experience.

Indian Institute of Management Bill clears way for UG courses

<http://www.newindianexpress.com/nation/2017/dec/21/indian-institute-of-management-bill-clears-way-for-ug-courses-1732991.html>

NEW DELHI: The passing of the Indian Institute of Management Bill 2017 by Parliament on Tuesday has paved the way for the commencement of undergraduate courses in management and liberal arts, apart from post-graduate degree courses, at all premier B-schools in the country.

At present, only IIM-Indore offers a five-year course in management while all other IIMs offer post-graduate diploma courses in business management and other short-duration courses in leadership, strategy and business planning.

The new Bill will allow these institutes to start undergraduate courses with the approval of the All India Institute of Technical Education.

“Though IIMs are the top B-schools in the country, we have only been awarding diplomas and not degrees as IIMs were neither governed by the UGC nor were they guided by any Act of Parliament,” said a senior executive with IIM-Calcutta.

The IIM Bill, planned during the UPA regime, was cleared by the Cabinet in January this year.

December 20

मोबाइल पर आज से दीजिए जेईई एडवांस्ड, मॉक टेस्ट शुरू

<https://www.livehindustan.com/uttar-pradesh/story-jee-advanced-mock-test-started-on-mobile-today-1705322.html>



जेईई एडवांस्ड का मॉक टेस्ट शुरू हो गया है। छात्र अपने कंप्यूटर और मोबाइल पर भी जेईई एडवांस्ड की वेबसाइट पर जाकर मॉक टेस्ट में सम्मिलित हो सकते हैं। यह टेस्ट जेईई एडवांस्ड के पहले तक चलता रहेगा। इसमें फिजिक्स, केमेस्ट्री और मैथमेटिक्स के तीन-तीन सेक्शन रखे गए हैं। साथ ही पहली बार कंप्यूटर बेस्ड टेस्ट (सीबीटी) प्रक्रिया से हो रहे जेईई एडवांस्ड में छात्रों को कई फायदे मिलेंगे। छात्र एक बार उत्तर देने के बाद भी विकल्प में बदलाव कर सकता है।

यह जानकारी आईआईटी कानपुर के कार्यवाहक निदेशक प्रो. मणींद्र अग्रवाल, जेईई एडवांस्ड के चेयरमैन प्रो. शलभ और वाइस चेयरमैन प्रो. अनिल मित्रा ने दी। उन्होंने मंगलवार को दोपहर 12 बजे मॉक टेस्ट की एक क्लिक कर शुरुआत की। प्रो. शलभ ने बताया कि 20 मई 2018 को होने

वाली जेईई एडवांसड को आईआईटी कानपुर करा रहा है। इस परीक्षा की प्रक्रिया में कई बदलाव करते हुए छात्रों को सुविधा दी गई है। छात्रों को सिर्फ कम्प्यूटर के समक्ष बैठकर माउस से क्लिक कर उत्तर देने हैं। रफ कार्य के लिए सभी अभ्यर्थियों को कॉपी और पेन दिए जाएंगे। जिसे परीक्षा खत्म होने के बाद जमा कर लिया जाएगा। इस बार जेईई एडवांसड में जेईई मेंस के सफल 2.24 लाख रैंक वाले परीक्षार्थी हिस्सा ले सकते हैं। पिछले वर्ष 2.20 लाख रैंक वाले परीक्षार्थियों को मौका दिया गया था। पिछले वर्ष जेईई एडवांसड में 1.71 लाख अभ्यर्थियों ने परीक्षा दी थी और 650 परीक्षा केंद्र बनाए गए थे।

जब चाहे बदल सकेंगे उत्तर का विकल्प

प्रो. शलभ ने बताया कि अभी तक ऑफ लाइन परीक्षा में एक बार उत्तर भरने के बाद उसे बदला नहीं जा सकता था। इससे छात्रों का कई बार असमंजस में उत्तर गलत हो जाते थे। इस बार सीबीटी में उन्हें उत्तर का विकल्प बदलने का मौका दिया गया है। छात्र जब चाहे जिस प्रश्न के उत्तर का विकल्प बदल सकते हैं।

कंप्यूटर याद दिलाएगा कितने उत्तर देना बाकी

प्रो. शलभ ने बताया कि प्रश्नपत्र में पांच विकल्प दिए गए हैं। पहले का मतलब सवाल अभी पढ़ा नहीं है, दूसरे का उत्तर अभी नहीं दिया है, तीसरे का जवाब दे दिया है, चौथे का पढ़ा लेकिन जवाब नहीं दिया, बाद में रिवीजन करेंगे और पांचवें का मतलब जवाब दिया पर पूरी तरह कांफिडेंट नहीं है, इससे दोबारा चेक करेंगे। हर प्रश्न के साथ ये विकल्प लगातार कंप्यूटर पर दिखते रहेंगे। अंतिम समय में अगर छात्र ने किसी प्रश्न को रिवीजन के लिए रखा होगा और उसे अंतिम सेव नहीं किया होगा तो समय खत्म होते ही उसे सेव मान लिया जाएगा।

180 मिनट में सबमिट हो जाएगा प्रश्नपत्र

प्रो. अनिल मित्रा ने बताया कि जेईई एडवांसड में छात्रों को 180 मिनट का समय दिया जाएगा। यह समयावधि पूरा होते ही प्रश्नपत्र खुद सबमिट हो जाएगा। अगर किन्हीं कारणवश कम्प्यूटर खराब होता है या अन्य कोई तकनीकी खराबी आती है तो उस सिस्टम की स्टॉप वॉच बंद हो जाएगी। सिस्टम चालू होने पर वह दोबारा चालू होगी। इससे सभी अभ्यर्थियों को पूरे 180 मिनट का समय मिलेगा। 180 मिनट पूरा हुए बिना प्रश्नपत्र सबमिट नहीं होगा।

कभी भी बदल सकेंगे प्रश्नपत्र की भाषा

प्रो. शलभ ने बताया कि प्रश्नपत्र की भाषा कभी भी छात्र बदल सकते हैं। शुरुआत में अगर अंग्रेजी माध्यम चुना है और अंदर कोई प्रश्न समझ नहीं आ रहा है तो अचानक भाषा बदल कर उसे हिंदी में भी पढ़ सकेंगे।

जेईई मेंस के बाद होगी कार्यशाला

प्रो. मणींद्र अग्रवाल ने बताया कि जेईई मेंस के बाद जो सफल छात्र जेईई एडवांसड में आवेदन करते

हैं और उन्हें अगर सीबीटी प्रक्रिया में कोई समस्या आती है तो उनकी एक विशेष कार्यशाला आयोजित की जाएगी। यह कार्यशाला सभी आईआईटी में होगी।

डेट ऑफ बर्थ होगा पासवर्ड

जेईई एडवांस्ड में छात्र की आईडी उसका रोल नंबर होगा और पासवर्ड उसकी डेट ऑफ बर्थ। इसके अलावा सभी जानकारी सिस्टम पर पहले से अपडेट होगी। सभी सिस्टम का नंबर अलग-अलग होगा।

Winds adding Afghan salt to Delhi's bad air

<https://timesofindia.indiatimes.com/city/delhi/winds-adding-afghan-salt-to-delhis-bad-air/articleshow/62141335.cms>



New Delhi: Particles from as far as the salt mines in Afghanistan could be contributing to the capital's PM2.5 levels and increase the pollution levels by around 11%, a study carried out by the Central Pollution Control Board (CPCB) and experts from IIT Delhi has found. The study says that the high chloride levels were found in Delhi's air, mostly during the winters when westerly and north-west winds blow towards the city.

CPCB officials said the study was carried out when high chloride levels were noticed in the air around February. "We noticed high sea salt content in the air. It was initially thought that it could be coming from either the Bay of Bengal or Arabian Sea, it seemed impossible as Delhi does not receive winds from the coast during winter months. A trajectory analysis was then conducted which traced the path of the particles, including the sea salt, which was traced back to salt pans all the way in Afghanistan," said a senior official of the board.

Officials said that while the particles are not harmful directly, they can push up the PM2.5 concentration in the capital. A study by the System of Air Quality and Weather Forecasting And Research (SAFAR) — a body under the ministry of earth sciences — had recently found that dust coming from the gulf region constituted nearly 40% of the pollution during Delhi's smog episode between November 7 and November 13, attributing around 25% of it to stubble burning as well.

CPCB officials said the study shows that it is possible for pollutants to travel from as far as west Asia

with Delhi's location allowing a "deposit" of such particulate matter. To carry out the study, officials say they used a trajectory model called the Hybrid Single Particle Lagrangian Integrated Trajectory (HYSPLIT), which has been developed by the US agency National Oceanic and Atmospheric Administration.

The study also found high chromium and copper content in the air which contributed to 8 and 7% in terms of contribution to PM2.5 concentration when westerly and north-westerly winds were blowing towards the capital. Experts said they could be coming from electroplating industries in Haryana.

"There are no standards for sea salt and they are often found near the coast but it is surprising for Delhi in winter. The levels of chromium and copper were also found to be a little high when the study was conducted," said Dipankar Saha, head of CPCB's air laboratory.

Recently, the Environment Pollution (Prevention and Control) Authority along with the CPCB asked the IMD to work on a forecasting model which could alert Delhi about an incoming dust storm like the one in October.

Language is linked with power, says Prof Alok Rai

<http://www.asianage.com/life/more-features/191217/language-is-linked-with-power-says-prof-alok-rai.html>

Speaking at fifth Agyeya Memorial Lecture on 'Struggle for Language', litterateur talks about language's struggle against itself.



Literature is a good place to register something that is fundamental to the nature of language, Rai noted.

New Delhi: Language is inextricably linked with dynamics of power and resistance and can provide a profoundly unsettling perspective on the distortions, perversities and unjust domination of regimes, according to eminent writer and critic Prof. Alok Rai.

“Language is a mirror or a window into our condition and it is also a strong weapon and tool of resistance. Literature is a good place to register something that is fundamental to the nature of language,” he noted.

Prof. Rai, who taught English literature at Allahabad University and Delhi University and was also the Head of the Department of Humanities at IIT Delhi, was delivering the fifth Agyeya Memorial Lecture on ‘Struggle for Language’, organised by the Raza Foundation last weekend.

“But language itself struggles; it struggles for existence amid the lies and noisy distortions. The struggle for language is, simultaneously and paradoxically, a struggle against language. This happens in at least two senses. In one sense, it is the poet’s struggle against the seduction of language. The other struggle is against the perversion of language, by rampant abuse, by the common traffic in imprecision and lies, in hypocrisy and mendacity,” said Prof. Rai, who is grandson of towering Hindi writer Premchand.

Raza Foundation Managing Trustee Ashok Vajpeyi, in his introductory remarks, noted that Prof. Rai is an active scholar and not confined to tranquility and meditation. “As a scholar and an important critic, he keeps interfering in the scene,” he observed.

In his stimulating 45-minute talk, Prof. Rai sought to build a premise for his contention in the Indian context by drawing a cricketing analogy and the rechristening of Gurgaon in Haryana to Gurugram.

“The Gurugram phenomenon – the Sanskritic spicing of smelly old Gurgaon – is merely farcical. Normally, this kind of symbolic politics involves little more than pots of paints, yardage for flags, taller flagpoles, very tall statues. But when this kind of farcical exercise takes over from the real, urgent and neglected tasks of governance, it is time to look deeper. Via language,” he contended.

Describing the renaming of Gurgaon as “our clue to retrograde nationalism”, he said, “Gurugram seeks to return to some imagined monkish moment when Aryan celibates walked the land and punished the apsaras who tried to seduce them...It is dedicated to the recovery of some prior, already-achieved nation, and so is fundamentally different from a future-oriented nationalism – committed to becoming a nation that addresses the needs and desires of all its members.”

As for the cricketing analogy to illustrate his contention that the struggle for language is also a struggle against language and how language is formed and deformed, Prof. Rai cited the term ‘Team India’, a ubiquitous, innocent-seeming phrase, rather than the ‘Indian Team’.

The term ‘Indian Team’, according to him, is specific and can refer only to the specific players who are part of the squad. But ‘Team India’ is inclusive and “we are, willy-nilly, a part of it. ...Team India encodes the nationalistic assumption that India itself is a team with harmonious complementarities’, conveniently overlooking the diversities, disharmonies and discords of a nation, he said, adding: “Selling this ‘nationalism’ via cricket is seductive.

However, despite the seductive and treacherous nature of language, it is important to insist that the political struggle must still be a struggle for language – the struggle for a more sensitive, truthful language, a language that is attentive and adequate to the delicate contours of our lives.

“I think of this as the poet’s task. But it is also the task of linguist, as also that of the citizen in this time of post-truth and the rising tide of bullshit to insist on calling out lies, even if it is controversial to do so,” said Prof. Rai, whose publications include translation of Premchand’s *Nirmala* into English and *Hindi Nationalism*.

There is yet another sense in which the struggle must be for language, he said. “Language is a mode of contention and resolution and a possible useful corrective for the distortions of our times...It is the only civilised alternative to perpetual warring over our wonderful and/or maddening, but certainly inescapable, differences. Or else, we can all start rolling up our sleeves,” he noted.

Literature deploys the magic of language in order to persuade, to widen the circles of sympathy, enlarge the range of human beings. “One thinks of Saratchandra’s women, of Premchand’s peasants, of Gopinath Mohanty’s forest dwellers. But it is important not to romanticize this power, important to remain somewhat suspicious of the magic of narrative and of language. There is an entire literature of colonial glorification, which casts a romantic light on its integral violence by styling it as high adventure and as civilization,” said the writer.

Stressing the Intersection between language and politics, he said it is wrong to perceive that literature or poetry is entertainment, escape, indulgence – merely cosmetic stuff, compared with the ‘real’ world. “This aesthetic fastidiousness seriously misrepresents the seriousness of art, of poetry, of language. It can be a primary means of access to the reality of extraordinary times,” he added.

The talk was the latest in a clutch of eight memorial lectures organised yearly by the Raza Foundation at the India Habitat Centre. The thought-provoking talks are dedicated to Kumar Gandharva, Habib Tanvir, Mani Kaul, Kelucharan Mohapatra, Agyeya, Daya Krishna, V.S Gaitonde and Charles Correa.

December 19

IIT placement season round 1: MNCs, big companies dominate, few offers from start-ups

<http://www.newindianexpress.com/nation/2017/dec/18/iit-placement-season-round-1-mncs-big-companies-dominate-few-offers-from-start-ups-1730574.html>



Students waiting for their turn at the campus placements at IIT-Madras in Chennai.

NEW DELHI: The recently concluded placement phase at the Indian Institutes of Technologies across the country saw a dominance of big firms and multinational corporations while the job offers received from start-ups saw a dip of over 40 per cent, figures from India's most premier engineering institutes show.

Authorities at placement sections at some of the top IITs said that there had been about 20 per cent rise in job offers received this year, as compared to last year and over 90 per cent offers were either international or large companies in the country.

"There were definitely some start-ups and e-commerce companies which hired students but their number was low," a senior official in the placement division at IIT, Delhi told this newspaper. "We had not encouraged many of them to participate in this year's recruitment process due to experience of delayed offers and offer revokes."

A senior functionary with the placement division at IIT-Kharagpur, too, said that out of over 1800 job offers received at the institute, about 1750 offers came from multi-national firms from India and abroad.

"Hiring by start-ups has not been very high this year," he said.

Bucking the trend, IIT-Madras also beat up IIT-Bombay, traditionally known for receiving highest job offers, in overall job offers received, according to available data.

A total of 763 offers were made in Phase I at IIT Madras. A total of 877 students were placed after adding 114 pre-placement offers to the total number of offers. In comparison, by end of Day 5, IIT-Bombay had placed 663 students out 733 offers that were made.

For IIT-Bombay, the high point was 60 international placement offers. International offers went up from 10 to 22 for IIT-Madras as well.

IIT-Roorkee witnessed one of the best placement seasons this year with over 843 offers handed out to students in first phase of placements with 205 participating companies.

Out of the total 843 offers, 295 were from core sector and 548 were non-core sector offers.

Microsoft, Webstaff, Mercari, Goldman Sachs, Tower Research, Uber, Samsung, Directi, Walmart, Texas Instruments, Accenture, ITC, Schlumberger, J.P. Morgan, Flipkart, Qualcomm, Oracle, Bain,

Citicorp Services India Pvt. Ltd., Maruti, Tata Motors, Tata Steel, Bajaj Auto, Hero and Mahindra & Mahindra were some of the companies which came to the campus for hiring in the first week.

At IIT Kharagpur too, several MNCs participated in the recruitment process for the first time including Apple—which offered jobs to five students for its India office.

Sources across IITs said that there was 15-25 per cent rise in total number of companies taking part in the recruitment process in the first phase of final placements, that ended mid-December, and there has been a remarkable rise in international offers.

As the first round of the placements conclude, a second phase will recommence in January and go on till May, 2018.

NEET, JEE likely to be conducted twice a year

<http://www.thehansindia.com/posts/index/Young-Hans/2017-12-19/NEET-JEE-likely-to-be-conducted-twice-a-year/346458>



NEET, JEE likely to be conducted twice a year

New Delhi: The national medical entrance exam, the NEET, and engineering entrance exam JEE might be conducted twice a year to give an opportunity to the students to bring out their best performance, the Lok Sabha was informed on Monday.

Union Minister of State for Human Resource Development (HRD) Upendra Kushwaha said, in response to a written question in the Lower House of Parliament, the Centre was setting up a National Testing Agency (NTA), an autonomous and self-sustained premier testing organisation, to conduct the entrance exams for the higher educational institutions.

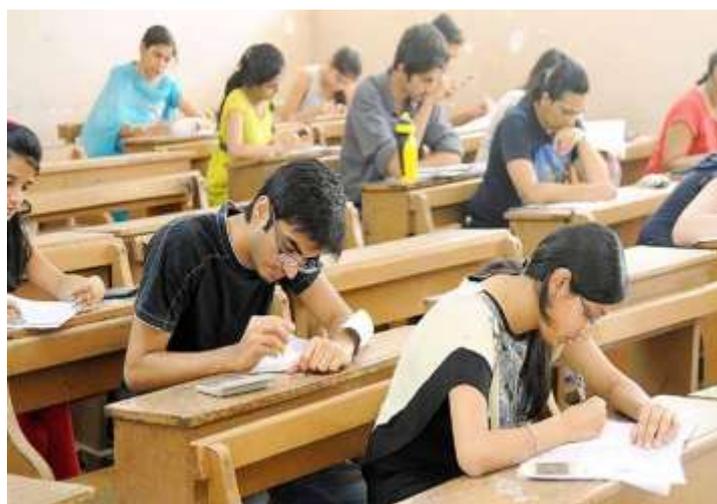
"The NTA will initially conduct those entrance exams which are held by the CBSE. The exams will be conducted online at least twice a year, thereby giving an adequate opportunity to the candidates to bring out their best," Kushwaha said.

Both the National Eligibility-cum-Entrance Test (NEET) for admission to medical colleges and the Joint Entrance Examination (JEE) for admission to engineering colleges are currently conducted by the Central Board of Secondary Education (CBSE).

The CBSE has conveyed its inhibitions to the HRD ministry about conducting the exams in future, saying they are overburdened with the massive exercise.

Changes in JEE, NEET exam formats likely soon, how NTA would help lakhs of students

<http://www.timesnownews.com/education/article/jee-neet-twice-a-year-soon-national-testing-agency-nta-cbse-mhrd-changes-in-examination/179346>



NEET and JEE are likely to be conducted twice a year by NTA

New Delhi: JEE Main and NEET are most likely going to change from 2019. As per reports, the two national level examinations are most likely to be conducted twice a year in the online format from the year 2019 by National Testing Agency, NTA. The NTA is expected to take over the responsibility from Central Board of Secondary Education, CBSE for conducting these examinations with some fundamental changes in its formats. Proposal for NTA has already been approved and the functioning expected to start from next year. But how exactly would NTA and the decision to conduct JEE Main and NEET or National Eligibility cum Entrance Test help lakhs of students? And what changes should the students expect?

The HRD Ministry is of the opinion that taking away the extra burden would leave CBSE with some space to focus on improving the quality of education and innovating curriculum. As such, the NTA was proposed and approved. The question that is raised, however, is how the NTA would help the students. The most apparent benefit of NTA would be the conduct of JEE Main and NEET examinations twice a year in an online format. The twice a year model for chief entrance examinations would help students to accordingly pace their studies and most importantly give them an additional opportunity to appear without wasting their year.

Every year, lakhs of students appear for these two entrance examinations in the hope of getting through the top engineering and medical colleges in the country. However, not everybody is successful and students accordingly drop one year to apply. Also, the examinations are at present conducted in the months of April and May, which are just after the board examinations for class 12th. The twice a

year may give students the time to pace their preparations, which is bound to benefit students immensely.

The other aspect of NTA is the possibility of a curriculum revision. Since NTA would be tasked to conduct only the examinations, the resources would be better employed. At present, students from state boards find the entrance examinations tougher due to the disparity in the curriculum. The syllabus for JEE Main and NEET are at present aligned with that of CBSE Class 11 and 12. It is possible that with NTA, there may be a better alignment of the curriculum.

In a separate report, the HRD Ministry had urged all the education boards to dialogue amongst each other to introduce a uniform syllabus for higher secondary classes in the country. This would further help NTA to streamline the syllabus and provide a uniform platform to students from across the country. Also, MHRD has asked JoSAA to consider the possibility of letting NTA conduct the JEE Advanced as well. The revert is awaited from the IITs.

The proposal for National Testing Agency, NTA was passed by the cabinet on November 10, 2017. As per the reports and the proposals, NTA was to be formed to initially overtake all the entrance examinations currently being conducted by the Central Board of Secondary Education. The NTA was proposed during the Union Budget 2017 and the Union Human Resources and Development Ministry acted promptly on the same.

Reports have confirmed that CBSE had written to the HRD Ministry seeking reprise from the entrance examination burden. At present, CBSE conducts the national level entrance examination for engineering admissions or JEE Main, and the national level entrance examination for admissions to medical and dental courses or NEET examinations. Apart from these two which sees registrations of upwards of 10 lakh students every year, the board also conducts the National Eligibility Test, NET for University Grants Commission, UGC and the Central Teacher Eligibility Test, CTET. The Board also is tasked with conducting the Class 10th and 12th board examinations for CBSE affiliated schools.

From turmeric to clean biofuel: IIT, ICT, CSIR-CFTRI students win entrepreneurship challenge

<http://www.hindustantimes.com/education/from-turmeric-to-clean-fuel-iit-ict-csir-cftri-students-win-entrepreneurship-challenge/story-mMuV7GRntEzVJRPoIoEyBK.html>

56 students from all over India participated in the challenge, winners get to go on a one-week trip to France and visit innovation hub



Members of the team that won the 24H Chrono Entrepreneurship Challenge.

Roorkee A team of young students from the Indian Institutes of Technology Delhi, Roorkee, Indore; Institute of Chemical Technology Bombay (ICT) and CSIR-Central Food Technological Research Institute (CSIR-CFTRI) have won an innovative business idea contest. The 24H Chrono Challenge was held this month at the Indian Institute of Science Education and Research Pune. The winners will be visiting France to participate in the final edition of the competition and explore an innovation hub in that country.

About 56 students from all over India participated from institutes such as IITs, CSIRs etc. They were selected from applications that were invited in October and were divided for the contest into eight teams with seven members, each with a different area of expertise.

Repaul Kanji, a PhD student from IIT Roorkee worked in the winning team with two others from his institute (Vasundhara Jain, MTech scholar and Pritam Singh, PhD scholar, both from the biotechnology department), one each from IIT Delhi (MTech), ICT (PhD), IIT Indore (PhD) and CSIR-CFTRI Mysore. Each team was given 24 hours to figure out an idea and establish it as a business plan with all necessary strategies like financial planning, exit strategies, marketing and sales strategy etc.

Kanji's team focused on food processing, specifically on production of turmeric powder. It takes about a month for the rhizome (underground stem) of turmeric to harden for powdering, but one of the team members had a patent which cuts this time from one month to eight hours. The residue from the powdering process is then used to make clean biofuel. "We build our plan around that" Kanji told HT.

The contesting teams were guided by mentors and experts who helped them fine tune their business models. Experts selected from the public and private sector trained them on legal, commercial, and financial aspects related to the project.

The 24H Entrepreneurship Challenge, or '24H Chrono de 'Entreprenariat', is a concept created by the French National Agency for Research and Technology (ANRT) and Novancia Business School to encourage the spirit of entrepreneurship among PhD students, and to equip researchers with the necessary skill sets to take their most innovative ideas from laboratory to market. Organised in France every year since France since 2011, it has now been brought to India as part of 'Bonjour India', a

platform to push for innovation and creativity between France and India from November 2017 to February 2018.

Mumbai: Pranab Mukherjee, Hamid Karzai will address IIT-B's tech fest

<http://www.freepressjournal.in/mumbai/mumbai-pranab-mukherjee-hamid-karzai-will-address-iit-bs-tech-fest/1189420>

Mumbai: The Indian Institute of Technology Bombay (IIT-B) will kick off its three-day annual science and technology festival Techfest from December 29, which will see former president Pranab Mukherjee and former Afghanistan president Hamid Karzai as keynote speakers.

The 21st edition of the festival will conclude on December 31. The festival expects an attendance of over 1.6 lakh youth, with an outreach of 2,500 colleges across the country and 500 colleges from overseas, the institute said in a press statement.

Other speakers at the leadership summit include Goa chief minister Manohar Parrikar, who is an alumni of the prestigious institute along with junior aviation minister Jayant Sinha.

IIT-M testing cycle-sharing model on campus

<http://www.thehindu.com/news/national/tamil-nadu/iit-m-testing-cycle-sharing-model-on-campus/article21886358.ece>



The Indian Institute of Technology — Madras (IIT-M) is testing a cycle-sharing model to coincide with the cultural and tech fest programmes to be held on the campus shortly.

“Students who return after holidays often find that their cycles need overhauling. We had a person come to the campus to service the cycles but often they could not be repaired,” said S. Sivakumar, dean of students.

The idea of bike sharing was mooted. An Internet search for smart locks for cycles led them to Torq, a company that uses GPS tracking system and a QR code in its app to unlock cycles. “There are 10,000 students and 8,000 faculty and though not all use cycles, it is easy to get around from hostel to the department,” said Ashwanth Monian, hostel affairs secretary.

After introducing the bike-sharing concept, there are currently three vendors on the campus — Zoomcar, Torq and Ola — and together they offer around 280 cycles. “The model would be reviewed in January after which a formal tender process would be followed to take it forward,” said Mr. Sivakumar.

Rushali Khandelwal, senior manager of Zoomcar, said there was an overwhelming response to PEDL. They receive 600 bookings daily for the 100 cycles on the campus. She attributed the demand to the ease of booking by paying via Paytm and the QR code lock for cycles.

Expansion plan

Once a buoyant market for bicycles, the city is now dominated by motorised two-wheelers and the Corporation’s cycle sharing plan is yet to take off.

Encouraged by the IIT-M success, the PEDL plans to expand base in the city by tying up with universities, housing societies and information technology parks. Ms. Khandelwal said, “We are in talks with many of these institutions through the PEDL Host process. PEDL already has a presence in Bengaluru, Pune and Kolkata.”

To become a ‘host,’ an individual must offer physical space. In turn, Zoomcar would provide several benefits, she said.

Govt submits plan for combating air pollution under 3 categories

<https://timesofindia.indiatimes.com/city/delhi/govt-submits-plan-for-combating-air-pollution-under-3-categories/articleshow/62126179.cms>



New Delhi: The Delhi government on Monday submitted a detailed action plan to the National Green Tribunal on combating air pollution. It listed actions it proposed to take under three different categories of air quality. The move comes days after NGT rapped the government for not submitting its action plan as per its direction. The measures listed by the Delhi government would be implemented simultaneously with the Graded Response Action Plan. To ensure better coordination, LG Anil Baijal chaired a meeting of different departments.

NGT, meanwhile, directed the Delhi government to consider shutting schools whenever air quality touched emergency levels to save children from inhaling pollutants. A bench headed by NGT

chairperson Justice Swatanter Kumar asked the AAP government to look into this aspect and incorporate it in its action plan.

3-PRONGED STRATEGY

Category I (PM10 > 500 and PM2.5 > 300 micrograms per cubic metre)	Category II (PM10 > 800 and PM2.5 > 500 micrograms per cubic metre)	Category III (PM10 > 1000 and PM2.5 > 600 micrograms per cubic metre)
<p>Steps to be taken under Category I</p> <ul style="list-style-type: none"> Mechanised sweeping of main roads Efforts to increase green cover Covering construction material Regular checking of overloaded and polluted vehicles Checking use of unauthorised fuels Promoting biomass composting Promoting battery-operated vehicles Ban on entry of non-destined goods vehicles Public awareness campaigns 	<p>Under Category II (in addition to the steps listed under Category I)</p> <ul style="list-style-type: none"> Controlling fires at landfill sites Water sprinkling on roads Intensify checking of overloaded and polluting vehicles Activating vapour recovery system at petrol pumps Washing trees using water jets, dependent on the availability of tankers 	<p>Under Category III (in addition to those listed under Category I and II)</p> <ul style="list-style-type: none"> Ban on entry of trucks (except those carrying essential commodities) Ban on civil engineering construction in Delhi Education department to urge all parents to restrain their kids from indulging in outdoor activities Civic agencies to intensify mechanical road sweeping Ban on gen sets to be enforced strictly Intensifying traffic management at all hotspots

"Why don't you close schools whenever the particulate matter levels are found to be beyond 900 microgram per cubic metres. Ask the schools to run on Saturday and Sunday, if required," the bench observed.

The Delhi government counsel said this was difficult to implement because the children would suffer academically. He said air quality was bad in winter season for three months and if schools were closed during this period, it would be difficult to complete their syllabus and examinations would have to be postponed.

The bench, however, expressed dissatisfaction and said, "You don't do your duty and now you are giving reasons. You are spoiling the lives of children. Infants are taking antibiotics in Delhi. Why should they suffer?"

"In the last 12 years, the Delhi government has not taken a single step to bring down the ambient air quality within permissible limits. If the lungs of children are affected today, imagine the disease they will have after 20 years," it said while directing it to consider the suggestion.

The action plan submitted before the tribunal is divided into three categories. The first category kicks in when PM2.5 and PM10 levels are above 300 and 500 g/m³ with measures like mechanised sweeping and public awareness campaigns on pollution.

Category II measures will come into effect when PM2.5 and PM10 cross 500 and 800 g/m³ even as category I measures continue. Category II measures include wetting of fly-ash ponds, a ban on DG sets and water sprinkling along with mechanised sweeping of roads. Category III measures will kick in when PM2.5 and PM10 cross 600 and 1,000 g/m³ and include measures, such as ban on entry of trucks into Delhi and putting a stop on civil engineering construction.

These measures, however, start at the "severe plus" category of GRAP, which already mandates a ban on entry of trucks and stopping of construction activity along with the implementation of odd-even scheme when PM2.5 and PM10 levels stay over 300 and 500 g/m³ for a period of 48 hours.

The meeting held by LG saw a review of the action plan with directions issued to the corporations to ensure 100% management of municipal solid waste within 16 months. The LG also them to indicate the exact requirement of funds. He directed them to ensure that no landfill fires occurred, apart from instructing them to take help from experts at the science and technology ministry and IIT Delhi.

As a pilot project, 14 home guard volunteers have been deployed as environment marshals in seven wards, the LG was informed, which will be increased to 100 in another 50 wards and will ensure that no waste burning or other environmental violations take place.

The transport department said that 2,000 buses would be procured in 8-16 months.

L-G Anil Baijal reviews plan to combat air pollution

<http://www.dnaindia.com/delhi/report-l-g-anil-baijal-reviews-plan-to-combat-air-pollution-2568801>



Ghazipur Landfill Ghazipur landfill site

Lieutenant Governor Anil Baijal on Monday chaired a meeting to review the detailed action plan of agencies/stakeholders on measures to combat air pollution in the Capital.

Baijal directed all the three municipal corporations to ensure that no methane fires occur at the three landfill sites and for this they should take help of experts of the Science & Technology Ministry, Government of India and IIT Delhi. He also asked all three municipal commissioners to procure requisite mechanical sweepers, litter pickers, water sprinklers within a stipulated time.

The officials informed the L-G about the progress on constructive plan and regulatory plan focusing on transport department, industries & DG sets, Solid Waste Management, road dust & fugitive emissions to combat air pollution in Delhi.

For the action plan on Solid Waste Management, Baijal directed the commissioners of three MCDs to rework their action plan keeping in mind 100 per cent management of day-to-day generation of solid waste, including bio-degradable components as well as construction & demolition waste. "The plan

should cover a time-frame not exceeding sixteen months and also indicate the exact requirement of funds," an official statement from L-G house stated.

Regarding the plan to tackle road dust and fugitive emissions, which is to be completed in eight months, it was informed that an assessment of all central verges will be done where watering on perennial basis is not possible, and all such central verges will be done.

"Further, large construction agencies like NBCC and CPWD that are working in the National Capital Region should set up their own facilities for processing C&D waste and reuse the products in their own projects. The L-G also stressed that agencies/stakeholders concerned must prepare an intensive awareness plan for anti-fire cracker campaign, plantation campaign, anti-polluting vehicle campaign, old vehicle campaign, lane driving," the statement further stated.

ACTION PLAN

- The L-G also asked all three municipal commissioners to procure requisite mechanical sweepers, litter pickers, water sprinklers within a stipulated time. He directed the corporations to seek help of experts.

December 18

Govt will groom 20 universities as ‘institutions of eminence’

<http://www.asianage.com/india/all-india/181217/govt-will-groom-20-universities-as-institutions-of-eminence.html>

Aim to break into exclusive club of global universities within five years.

The HRD ministry with the help of Niti Aayog had begun the process of finalising the guidelines for picking the institutions of eminence.

New Delhi: Aiming to push the best of Indian higher education institutions into the elite list of top 100 world institutes, the Centre with the help of Niti Aayog has prepared a blueprint to pick and groom 20 Indian universities as ‘Institutions of Eminence’ which will have to break into the exclusive club of global varsities within five years of their getting the aforementioned tag.

However the rider is that any institution failing to do so will lose the coveted status and all privileges attached to it will also be taken away.

Highly placed sources said that while the government is willing to give these institutes of eminence as much autonomy as possible, there would be zero tolerance in terms of their violating any terms of the guidelines prepared by Niti Aayog and Union human resources development (HRD) ministry. Any deviation from the rules will lead to snatching away of the tag from the erring varsity and all the freedom given to it as an autonomous institution will too be taken away, they added.

The Prime Minister’s Office (PMO) had begun the initiative of bringing greater number of Indian institutions in the field of higher education within the fold of top 100 global varsities.

Subsequently, the HRD ministry with the help of Niti Aayog had begun the process of finalising the guidelines for picking the institutions of eminence.

The HRD ministry notified the blueprint or rather the guidelines for the purpose in September this year, titled 'The UGC (Institutions of Eminence Deemed to be Universities) regulations, 2017', and it received 100 applications from both state-run as well as private varsities from across the country till December 12, which was the last date for application.

The empowered expert committee (EEC) of the HRD ministry will now select 20 varsities from these applicants to be upgraded as institutions of eminence. These would be given greater autonomy by the Centre in terms of choosing foreign faculty as well as students and fix and charge fees from them without restrictions from the University Grants Commission (UGC, the apex body governing universities in the country).

Top sources privy to development said that these selected institutions will have to break into the global list of top 100 varsities within five years of their becoming centres of eminence.

All the seven IITs are learnt to have applied for the coveted status, sources informed.

As per the guidelines, the institutions of eminence shall continue to be ranked in the National Institutional Ranking Framework, but within five years of notification, these will have to get themselves ranked in an international ranking index of repute. It should from then on continue to be ranked in the national and international ranking frameworks.

December 17

Ministry of Road Transport Organise Conference on Safer Mobility, Promote Road-Safety in India

<https://auto.ndtv.com/news/ministry-of-road-transport-organise-conference-on-safer-mobility-promote-road-safety-in-india-1788832>

The idea was to promote collaboration among multiple stakeholders working across the domain, to promote road-safety across India.



Ministry of Road Transport and Highways (MoRTH), Indian Roads Safety Campaign (IRSC), DTP and TRIPP, IIT Delhi organised a conference on safer mobility titled 'A Road to Safer Mobility' today in IIT Delhi with a view to promote collaboration among multiple stakeholders working across the domain, to promote road-safety across India. Nitin Gadkari, Union Minister for Road Transport and Highways (MoRTH) through a video message emphasized on changes made by the government in the direction of road safety. He focussed on following traffic rules and appreciated the IRSC team for its initiatives. Other key speakers included V. Ramgopal Rao, Director, IIT Delhi, Abhay Damle, the Joint Secretary of MoRTH and Amar Srivastava, Founder, IRSC.

The conference was divided into three sessions- 'Government: Point of View', 'Contribution of Industries' and 'Initiatives taken by NGOs'.

The first session- Government: Point of View had Amit Bhardwaj from Niti Aayog; Dr. Sushma Sagar, senior surgeon at AIIMS trauma center; Mr. Arun Mohan, Senior advocate at Delhi high court; Mr. Vijay Singh, DCP of Delhi Traffic Police and Maj. Gen. Dilawar Singh, Director of NYKS and Ministry of Youth affairs and Sports as speakers. Each panellist spoke about the various initiatives taken up by the government bodies that they represented and how they plan to tackle the road safety issue. There was a discussion on collaborating all the efforts by the police, the healthcare department, the education department and all the other departments to achieve a common goal. The involvement of youth in these initiatives was stressed upon.

The second session on the contribution of industries and was moderated by Bhairavi Singh, principal anchor at NDTV. The speakers were- Vijay Kalakala, deputy general manager at Mercedes-Benz, R&D India, Shyam Sundar, Head HSE Nokia, India; Navdeep Singh Mehram, Head of sustainability, Diageo India; Kuldeep Agarwal, Head of CSR at Indus towers and Ashwin Kak from AbInbev. The discussion started off with issues regarding the Motor Vehicle Act. It then went on to cover the various initiatives taken up by the corporate and the effectiveness

of the CSR campaigns. In the end, solutions were presented and everyone agreed that data analysis and collection is should be the primary focus.

The third session- 'Initiatives Taken By NGOs' was conducted on the initiatives taken by NGOs. It was moderated by Ambika Singh, anchor, NDTV. The speakers were Anurag Kulshrestha, president of TRAX; Prerana Arora, head of road safety center at SPUU; Aditya Nayan, director at Safe life foundation; Vinod Kanumana, president at IFROS and Veena Naabar; CEO at IRF India Chapter. The discussion focussed on the work done by the various NGOs across the world and their scope. The need to work as a single team with a single focus of road safety was stressed by the panellists.

Abhay Damle launched the IRSC booklet containing laws and traffic regulations in a simplified form. Throwing light on government's approach towards Vision Zero, he spoke on how science and technology are the primary solutions for road safety and talked about going from safe-fail towards fail-safe systems. He mentioned the 3 -second rule and the need to relook, 120 kmph+ speeds. He also focused on prevention and the problems to be tackled regarding helmet design, airbags and seatbelts.

IIT-Kgp turns onion skin into electricity

<https://timesofindia.indiatimes.com/city/kolkata/iit-kgp-turns-onion-skin-into-electricity/articleshow/62102402.cms>



KOLKATA: A novel research by scientists at IIT-Kharagpur has shown the way to generate electricity from onion peel. Eateries saddled with bags of the waste product can now turn them into a power source - the skin of a single onion can light up 12 green LEDs.

Professor Bhanu Bhusan Khatua, his PhD scholar Sumanta Kuman Karan and their team at the Material Science Centre (MSC) have developed the green technology after a year-long research. The result has been tested and improved by scientists, led by Jin Kon Kim, at Pohang University of Science and Technology (Postech), South Korea. The paper was published in the Nano Energy journal in October.



The researchers have applied for a patent on the technology which can be used in places where onions are used in bulk. "The technology can be easily adopted at restaurants where a lot of onion peels are accumulated on a daily basis. Only, they end up in bins," said Khatua.

His research found that only half-an-inch of an onion peel is enough to generate 20 volts. "If you gather the peels of six onions and place them in a series, they can light-up 80 LEDs or charge your laptop or mobile phone," the scientist said.

To make the system work, the user has to encapsulate the onion skin and fabricate the device - the size of an adhesive plaster. The device, called nanogenerator, must then be attached to mechanical or bio-mechanical energy sources to generate electricity.

Nanogenerators convert kinetic energy created from vibrational and mechanical sources into electrical power, doing away with the need for external circuits or batteries. In scientific jargon, the devices are called bio-piezoelectric nanogenerators (BPNG). "The fabricated nanogenerator will be capable of harvesting many kinds of mechanical energies, including body movements, wind flow and machine vibrations," said Khatua.

"This is the first time that a nanogenerator has been designed using onion peel as the medium for generating electricity. Onion peels are bio-degradable and bio-waste material. Unlike other piezoelectric materials, they don't require pre-treatment or electrical polling. We just have to place the onion peel-based nanogenerator, connected with the smart electronic devices, under the mechanical or bio-mechanical energy sources," said Khatua.

The electricity in the cellulose-based onion skin is produced as a result of structural changes in the cellulose under external mechanical stress or force, including movements as delicate as the touch of a finger or a heart pulse.

"We are currently developing the technology for industrial and domestic application, and applying for its patent," Khatua added.

"The onion skin used to fabricate the nanogenerators will keep on generating electricity until they are naturally destroyed," he said. Since harvesting energy through human body movement (joint

movement) is an emerging trend for smart applications, IIT-Kharagpur's effort to commercialize electricity generated from onion peel may go a long way in providing free power to rural India.

"We look forward to the day onion skin-based bio-piezoelectric nanogenerators find applications in health care as a self-powered energy source for pacemakers or as a sensor for monitoring heart pulse," Khatua said.

December 16

IIT Delhi develops smart jacket for soldiers in emergency

<http://www.newindianexpress.com/thesundaystandard/2017/dec/16/iit-delhi-develops-smart-jacket-for-soldiers-in-emergency-1729286.html>

NEW DELHI: The Indian Institute of Technology-Delhi (IIT-D) is developing a 'Smart and Intelligent Soldiers Jacket' with unique features and design in collaboration with the Defence Research and Defence Organization (DRDO).

The jacket will have integrated interconnects, antennas, sensors and chips. It will be lighter in weight and lower in price compared to the current one.

The Joint Advanced Technology Centre of IIT, established by DRDO, has a research vertical, Smart and Intelligent Textile, under which more than a dozen researchers have been working for a month to create the smart jacket for the Indian Army. T

The project is in the initial stage. Its time period is five years but our target is to get the jackets ready by the next three years," said Anuj Dhawan, professor-in-charge of the project.

The jacket will be developed in three phases. In the first stage, the scientist will develop textile based flexible circuit boards and multi-chip modules. Next, modelling, fabrication and testing of different types of radio frequency and microwave antennas on textile-based and polymeric substrates will take place.

Finally, several kinds of sensors will be developed and integrated on the textiles, says the proposal design. Features like signal processing chip, chemical sensor, communication chip etc. will help the soldiers in mobility, detecting threats and communication.

"These features will be very helpful to the soldiers in every circumstance. For instance, the gas sensors will help detect the gases and identify their type.

Through communication chips, soldiers can pass on messages and at times of emergency, inform the other soldiers or seek help," said an official.

IIT Delhi students to be mentored by Washington University

<https://economictimes.indiatimes.com/industry/services/education/iit-delhi-students-to-be-mentored-by-washington-university/articleshow/62085348.cms>

IIT Delhi and Washington University in St Louis (WashU) today inked an agreement under which select students of the premier engineering institute will have their skills honed.

As per the agreement, IIT Delhi will become a partner of McDonnell International Scholars Academy of the WashU.

The students of IIT Delhi will be incubated with new ideas and mentored as future leaders. They will even be able to lead ground breaking research projects and prepare for the broader world, it added.

Commenting on the partnership, IIT Delhi Director V Ramgopal Rao said that in the past, the IITs were always more Indian-oriented, with Indian students and Indian faculty, solving Indian problems. But now, he said there is an opportunity for us to reach out to international collaborators and work on global problems.

WashU Chancellor Mark S Wrighton said:"We see so many challenges ahead of us, and no single institution and indeed no single country can actually address all of the approaches to solving these big problems. So it is important for us to partner other institutions in other countries to solve global problems that face us all."

Three or one? What would you pick? Bajaj Allianz Healthy tasty Oats Tikkis for tiffin Kissan Tiffin Timetable Recommended by Colombia the WashU along with IIT Delhi today also organised first 'Forum for India' platform to address how energy choices affect agriculture, environment and health, specifically in relation to climate change.

IIT Delhi sees 17 pct rise in post-graduate placements, overall 10 pct

<http://www.financialexpress.com/india-news/iit-delhi-sees-17-pct-rise-in-post-graduate-placements-overall-10-pct/974436/>

IIT Delhi placements: The premier education institute, Indian Institute of Technology (IIT), Delhi has experienced a 17 per cent rise in its post-graduate placements and 10 per cent rise in overall placements in the first 10 days.



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IIT Delhi placements: The premier education institute, Indian Institute of Technology (IIT), Delhi has experienced a 17 per cent rise in its post-graduate placements and 10 per cent rise in overall placements in the first 10 days. The placements that started on December 2, on the 10th day of the ongoing placements season has seen 10 per cent overall rise in jobs offered across all streams and institute officials involved with the placement cells reported that they are hopeful the percentage will increase as placements progress. According to I.N. Kar, professor-in-charge of Training and Placement in IIT-Delhi, "While the overall placements have been better than last year, recruitment trends of PG students is very encouraging for the future of engineering research in the country". The first phase of placement that started in December 2 will end on December 15 while the second phase will start in January. I.N. Kar further said that he was hopeful of the percentage increasing in the second phase.

Within five days of starting of placement, more than 500 students were hired by recruiters including 25 international companies. Companies from Singapore, Hong Kong, Amsterdam, the US have recruited students till now in which six jobs were offered by Microsoft alone. Intel clocked the maximum number of recruitment with 30 job offers among national companies, IANS revealed. Indian Space Research Organisation (ISRO) was among one of the recruiters on the first day of placement. In a statement released earlier, students had bagged 150 pre-placement offers out of which the students accepted 80 jobs.

Statement also said that few students had opted for the institute's placement available for start-up ventures. The statement said that the institute's system of rostering helped the students bag the perfect job and this year several students have received job offers on their core subject. The statement also said that Asian companies gave a tough competition to their US counterparts and the institute saw a 40 per cent rise on job offerings from companies on Day 1.

Initial reports of the recruitment suggest that Microsoft has offered Rs 1.4 crore, the highest package till now, to a student while many other students have made the crore-plus cut too.

FSSAI orders safety audits of canteens at premier edu institutes

<http://www.millenniumpost.in/delhi/fssai-orders-safety-audits-of-canteens-at-premier-edu-institutes-275269>

Food regulator FSSAI has ordered safety audits of canteens at 10 large educational institutes, including AIIMS (Delhi) and IIT (Delhi) in light of complaints with regard to food safety and hygiene standards.

The Food Safety and Standards Authority of India (FSSAI) said the audit would be done by empanelled 15 agencies, which would be given one-month time to submit their report. The audit, the FSSAI said, has been ordered as a number of cases of food safety issues have been reported from hostels and canteens of various academic institutions in India.

According to the sources at AIIMS, foods being served to the doctors at the hospital compounds are in vulnerable condition, meanwhile, the caretaker don't maintain the hygiene standards at its work zone.

"In view of this, the FSSAI has ordered special food safety audits of the canteens, cafeterias, hostel mess etc of 10 select large central institutes of higher education like IIT (Delhi, Mumbai, Chennai and

Guwahati), AIIMS (Delhi and Jodhpur), IIM (Ahmedabad and Kozhikode), IISc Bangalore and IISER Kolkata," the FSSAI said in a statement.

To strengthen the food safety surveillance system, the FSSAI has taken up audits of food business operators through third-party audit agencies. It has empanelled the 15 audit agencies in accordance with the Food Safety and Standard (Food Safety Auditing) Regulation, 2017. The audit in select 10 institutes will help find out whether hostel mess, canteen or cafeteria where food is handled in these institutions comply with the safety and hygiene standards prescribed under the food safety law. "These reports will give an insight into the existing standards of food safety and hygiene of these canteens, hostel mess etc and will help the FSSAI identify the gaps," the authority said.

The FSSAI expects that the results of these audits will serve as guidance to these institutions to improve and maintain the standards of food safety and hygiene on their premises, the statement said.