Newspaper Clips
April 14-20, 2018

April 20

Review building plans of highrise towers, writes DC

https://timesofindia.indiatimes.com/city/chandigarh/review-building-plans-of-highrise-towers-writes-dc/articleshow/63841896.cms

Deputy commissioner Gurpreet Kaur Sapra at Peer Muchalla

MOHALI: The city's deputy commissioner, Gurpreet Kaur Sapra, in her letter to additional chief secretary of local government, Punjab, has recommended to review all plans of high-rise buildings, constructed under Zirakpur nagar council in the last three years.
She added that this review was crucial because some high-rise buildings were being constructed on the reclaimed bed of River Ghaggar. In her recommendations, the DC asked the additional chief secretary to direct nagar council of Zirakpur to not clear any building plan without physical inspection.

"Keeping this in mind, it is highly recommended to form a high-level committee that comprises experts from either IIT, Roorkee, or IIT, Delhi," she stated. She, in her letter, added that these experts would evaluate the buildings in terms of resistance towards earthquakes, security guidelines, age of buildings, soil bearing capacity, etc. so that the safety of people could be ensured.

"This committee would also ensure that no accidents, similar to the building collapse case in Peer Muchalla area, happen in the future," she added. She wrote that when she visited the area, she observed that some buildings were erected at the reclaimed bed of Ghaggar river. She said that flats were being constructed on land pieces as small as 100 sq yard, which was not permissible under Real Estate Regulatory Authority (Rera) in Punjab.

"At VIP Road and some other places, commercial or residential construction activities are not as per the master plan. Illegal basements are being constructed, where shops, discos and bars have come up. This has led to parking problems in the area," she stated.

She also demanded that all aspects should be added to the purview of the yet-to-be-formed committee and assured that the district administration and Police would provide all possible assistance to the committee.

April 19

IIT Delhi's 'Open House' to begin on Saturday

http://www.thehansindia.com/posts/index/Young-Hans/2018-04-19/IIT-Delhis-Open-House-to-begin-on-Saturday/375033

New Delhi: A durable intelligent artificial leg and an affordable pocket gadget for soil testing are among the new innovative products developed by students of the IIT Delhi. The products are outcome of research projects by students, staff and faculty and will be on display at the fourteenth edition of 'Open House'.

The intelligent artificial leg uses smart-sensing technology in shoes to adapt to the movement of the user, officials said. "We look forward to provide opportunities for visitors to experience the state-of-the-art innovations of our students and faculty at IIT Delhi.

"It is our objective to create a nurturing eco-system for students to inspire them to work on innovative solutions for our socio-economic challenges," Director, IIT Delhi, V Ramgopal Rao, said.

A live display of pioneering research projects, technical workshops by industry experts and a guided showcase of the on campus laboratories are some of the highlights of the scheduled on April 21.

Some of the other products that will be on display include an upper lim robotic rehabilitation device for objective physiotherapy in case of a stroke, a nasofilter, an affordable pocket spectrophotometer for field diagnosis and soil testing, and digitally accessible braille.

"IIT Delhi's Open House is a platform for the culmination of a year's worth of inimitable innovations undertaken by students and faculty alike," said SK Khare, Associate Dean, Research and Development, IIT Delhi.

IIT-Delhi's Open House: Water-less bathing, innovative healthcare solutions and more

https://www.newsbytesapp.com/timeline/India/20678/97255/iit-delhi-open-house-eco-friendly-healthcare-tech-on-display

The 14th edition of IIT-Delhi's Open House is all set to begin on April 21, and this time, the elite technology institute has several eco-friendly and healthcare solutions to showcase.

The Open House is an event where innovative technologies developed by IIT-Delhi students are displayed.

Students from over 50 schools and engineering colleges in Delhi, Haryana, and Punjab are expected to attend.

Here's more.

19 Apr 2018IIT-Delhi's Open House: Water-less bathing, innovative healthcare solutions and more

What IIT-Delhi Open House is all about

"IIT Delhi's Open House is a platform for the culmination of a year's worth of inimitable innovations undertaken by students and faculty alike," said SK Khare, Associate Dean, Research and Development, IIT Delhi.

Eco-friendly techWaste conversion, water-less bathing, solar energy storage and more

To help reduce air pollution in Delhi from crop burning, IIT-Delhi students have invented tech that allows the conversion of agro-waste to reusable pulp at small scales.

Other eco-friendly tech on display include a flow battery for solar energy storage, an affordable pocket gadget for soil testing, and a product for water-less bathing for people in water-scarce areas.

Healthcare techAffordable healthcare solutions for the future

Students have also invented an intelligent artificial leg with sensors which adapt to the movement of the user.

Additionally, they have created an upper limb robotic rehabilitation device for objective physiotherapy in case of a stroke, and an affordable Rs. 10 nasofilter for filtering out 2.5M pollutants.

To help the visually impaired access information, students also invented an affordable digital braille system.

Institutional focusTackling socioeconomic issues through innovation is the focus of IIT-Delhi

V Ramgopal Rao, the Director of IIT-Delhi, has said that the institutional focus is now on tackling issues faced by people in everyday life through an inter-disciplinary approach.

The institute has tied up with AIIMS for advancing medical technology.

Starting from June, IIT-Delhi will also expose its students to rural life to help innovate technologies to tackle problems like open defecation, waste disposal, etc.

IIT research scholars can now convert their thesis into start-ups

https://www.indiatoday.in/education-today/news/story/iit-research-scholars-can-now-convert-their-thesis-into-start-up-1215800-2018-04-19

Doctoral students at the Indian Institutes of Technology (IITs) will now get a chance to convert their thesis into a start-up.

Doctoral students at the Indian Institutes of Technology (IITs) will get a chance to convert their thesis into a start-up.

The plan will be first executed in IIT-Delhi, allowing researcher scholars to become entrepreneurs.

"It will be a platform to harness deep technology from blockchain to artificial intelligence via young companies. The aim is to convert thesis to start-ups," V. Ramgopal Rao, director of IIT-Delhi said on Tuesday, reported by the Livemint portal.

As per the reports, around 25,000 researchers are currently pursuing doctoral studies at centrally funded technical schools (CFTIs).

PERKS:

The scholars who would be selected to pursue their big dream would have a monthly compensation as the salary standard of the industry.

Moreover, students will be provided with seed capital, free mentoring, accommodation and access to IIT-Delhi labs.

Further, the IIT will help them in raising capital fund as per their needs.

Professors of the esteemed institution are showing support to this historic move.

The portal quoted professor K. Panigrahi saying, "IIT-Delhi will handhold them with all kind of facilities and compensation for three years. Since deep technology subjects need expertise, it was natural to think about doctorate students."

IIT-Delhi is setting up incubation centre at Sonepat, Haryana to incubate around 50 companies every year.

जेईई एडवांस में इस बार पेंसिल-कागज पर लगेगी रोक

https://www.livehindustan.com/bihar/patna/story-paper-pencil-will-be-prohibited-in-jee-advance-exam-1911208.html

जेईई एडवांस परीक्षा में इस बार कागज-पेंसिल पर पूरी तरह से रोक रहेगी। 20 मई को यह परीक्षा पूरी तरह ऑनलाइन कंप्यूटर आधारित होगी। परीक्षार्थियों को अपने साथ किसी तरह का कागज अथवा पेंसिल नहीं ले जाना होगा। यह व्यवस्था इस बार लागू हुई है।

देश में इस बार इस परीक्षा के संचालन की जिम्मेवारी आईआईटी कानपुर को मिली है। बिहार जोन में इस परीक्षा के आयोजन की जिम्मेवारी आईआईटी पटना को मिली है। सेंटर का निर्धारण पटना आईआईटी द्वारा ही किया जाएगा। परीक्षा समन्वयक प्रलय दास ने बताया कि आईआईटी में महिलाओं की हिस्सेदारी बढ़ाने के लिए इस बार सुपरन्यूमेररी सीट का प्रावधान किया गया है। इसमें पुरुषों की सीट की संख्या घटाए बिना महिलाओं की सीट में बढ़ोतरी की जाएगी। इस प्रावधान से आईआईटी अंडर ग्रेजुएट कोर्स में महिलाओं की संख्या आठ प्रतिशत से बढ़कर 15 से 20 प्रतिशत तक हो जाएगी। इसके तहत उन्हीं महिलाओं को शामिल किया जाएगा जो जेईई एडवांस में सफल होंगी। विदेशी छात्रों के लिए रजिस्ट्रेशन शुरूजेईई एडवांस परीक्षा में शामिल होने के लिए विदेशी छात्रों की रजिस्ट्रेशन प्रक्रिया बुधवार से शुरू हो गई है। जेईई वेबसाइट पर जारी नोटिस के अनुसार विदेशी छात्र सात मई तक ऑनलाइन अपना रजिस्ट्रेशन करा सकते हैं। इसके लिए उन्हें जेईई एडवांस के वेबसाइटपर जाना होगा। इसके अलावा जेईई मेंस परीक्षा में मेरिट लिस्ट के आधार पर चयनित दो लाख 24 हजार छात्र इस परीक्षा में शामिल होंगे। 14 मई से इस परीक्षा के लिए एडमिट कार्ड लोड किया जा सकेगा। भारतीय छात्रों के

लिए रजिस्ट्रेशन प्रक्रिया दो मई से शुरू होगी। यह सात मई के शाम पांच बजे तक चलेगी। बिहार के नौ शहरों में होगा सेंटरजेईई एडवांस की परीक्षा इस बार बिहार के नौ शहरों में होगी। राजधानी पटना के अलावा आरा, भागलपुर, बिहारशरीफ, दरभंगा, गया, मुजफ्फरपुर, पूर्णिया और समस्तीपुर में यह परीक्षा आयोजित होगी। परीक्षा दो शिफ्टों में होगी। पहली शिफ्ट सुबह नौ बजे से जबकि दूसरी शिफ्ट दो बजे से शुरू होगी।

National portal to share research facilities soon

http://www.thehindu.com/sci-tech/science/national-portal-to-share-research-facilities-soon/article23598589.ece

The institutions that have the equipment will provide access to researchers through an online reservation system.

Easy access to expensive equipment

Soon researchers in any college or institution and research organisations can check, reserve and have easy access to even expensive research equipment and facilities anywhere in India, thanks to the efforts by the Centre for Nano Science and Engineering (CeNSE) at the Indian Institute of Science, Bengaluru.

The centre is in the process of collating information about scientific and research equipment and facilities available at academic institutions and research organisations across the country.

Online reservation

The portal — Indian Science, Technology and Engineering Facilities Map (I-STEM) — will soon become operational. The government green signalled the project last month.

The institutions and organisations that have the equipment and facilities will provide access to researchers for both academic and non-academic work through an online reservation system.

‘Many benefits’

“This initiative will have many benefits. It will provide access to researchers to any equipment or facility that has been procured using public funds, the equipment will be better utilised and it will avoid duplication of expensive equipment as much as possible,” says Dr. Sanjeev Kumar Shrivastava

of CeNSE and one of the two researchers who came up with this idea. “Sharing expensive equipment can bring down the cost of doing research in India.”

Putting to rest the fear that this initiative may come in the way of premier institutions which are just coming up from procuring essential equipment, Prof. Navakanta Bhat, chairman of CeNSE and the principal investigator of the I-STEM project, says: “Each institute will need certain equipment that is absolutely necessary and essential for regular use. It is not at all the intent of this initiative to stop such institutes from procuring equipment but to ensure that each instrument is better used.”

“We are trying to replicate the Indian Nanoelectronic Users Programme (INUP) model at CeNSE and IIT Bombay that has been in operation since 2008 to provide access to sophisticated device fabrication and analytical equipment to any academic researcher in the country. I-STEM is inspired by our positive experience with INUP,” says Dr. S.A. Shivashankar, visiting professor at CeNSE and the other person who is the brain behind this initiative.

The idea of starting a national network was shared with Dr. R. Chidambaram, former Principal Scientific Adviser.

The proposal was formally sent to the government in November last year.

Glycogen in neurons of degenerating brains is beneficial: study

http://www.downtoearth.org.in/news/glycogen-in-neurons-of-degenerating-brains-is-beneficial-study-60241

A new study by IIT Kanpur suggests that glycogen has a protective role in neurons of patients suffering with neurodegenerative disorders

Subramaniam Ganesh of Indian Institute of Technology, Kanpur with his team.

Healthy neurons do not store glycogen - the main source of energy storage for cells - while they do possess the machinery for glycogen synthesis in an inactive state. At the same time, neurons in degenerating brains are known to accumulate glycogen. A team of Indian scientists has figured out that glycogen in neurons actually has a protective role in patients with neurodegenerative disorders like Alzheimer's and Huntington's.

Glycogen synthetic machinery in healthy neurons usually remains in an inactive state. In this machinery,an enzyme called glycogen synthasecatalyses the formation of glycogen. Using cellular and animal models of Huntington’s disease, the researchers have shown that high level of cytotoxic mutant Huntingtin protein triggers more glycogen synthesis in neurons by activating glycogen synthase. They observed that increased level of glycogen synthase protects neurons from the

cytotoxicity of the mutant Huntingtin protein.For long, scientists have been trying to find specific role of glycogen in neurons, especially in brain diseases like Huntington's, Lafora, Alzheimer's etc. with some believing it be neurotoxic. The new study led by Subramaniam Ganesh of Indian Institute of Technology, Kanpur (IIT-K) suggests that glycogen has a protective role in neurons of patients suffering with neurodegenerative disorders.

"Our findings establish that glycogen synthase is required for neurons to survive during stress. We also show that glycogen thus synthesised prevents aggregation of abnormal proteins, and helps in their clearance. These findings might open up new avenues of therapeutic interventions," explained Ganesh.

Theactivation of glycogen synthase is harmful to healthy and happy neurons, and this may explain why glycogen granules arenot seen in normal neurons. This means glycogen accumulation in degenerating brain could possibly represent a failed attempt of neurons to survive during the stress. "Our work establishes neuroprotective role of glycogen synthase in Huntington's disease models and thus discovers a previously unknown function of glycogen synthase in neuronal physiology", he added.

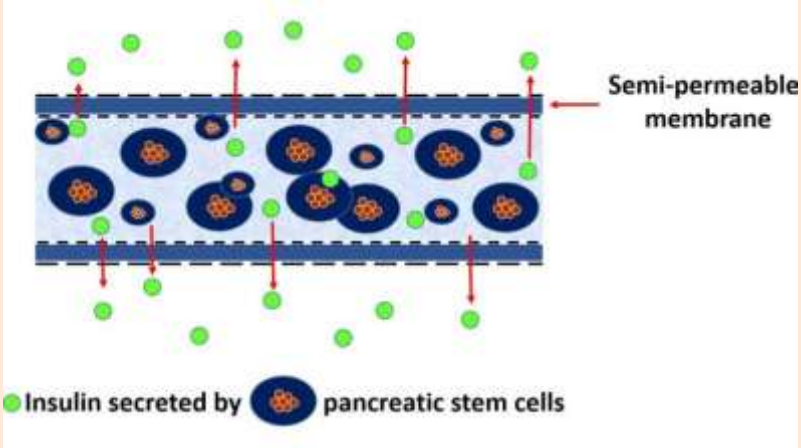
"It is an important finding on protective role of glycogen synthase in neurodegenerative diseases which may have translational relevance," commented Professor Sathees C Raghavan from Indian Institute of Science, who is not connected with this study.

"These findings may open exciting possibilities for developing new therapeutic approaches for the neurodegenerative diseases which are becoming serious health issues in human populations in recent times," said S C Lakhotia from Banaras Hindu University, who is not a part of this study.

The study has been published in journal Cell Death and Disease. The research team included Anupama Rai, Pankaj K. Singh, Virender Singh, Rohit Mishra,Ashwani K Thakur, and Subramaniam Ganesh(IIT-Kanpur); Vipendra Kumar, Nihar R. Jana (National Brain Research Centre, Manesar); Anita Mahadevan, Susarla K Shankar, (NIMHANS, Bengaluru). This research work was funded by Department of Biotechnology.

Sweet news for diabetics

https://researchmatters.in/news/sweet-news-diabetics



India is infamously called the ‘diabetes capital of the world’. With over 40 million diabetics in the country, we have a distinction of having the highest number of diabetics for any country. This has huge implications on the country’s healthcare, forcing doctors, scientists and citizens to work together to manage and remediate this condition. Now, researchers at the Indian Institute of Technology Bombay (IIT Bombay) have some sweet news for diabetics. They have developed a polymer based bioartificial pancreas that can be implanted inside the body, thus helping in managing diabetes.

Diabetes mellitus is a chronic metabolic disorder in which sugar levels in the blood are very high for a prolonged period. In a healthy person, the body breaks up the carbohydrates in the food, into glucose, which supplies energy. This is done with the help of a hormone called insulin, produced in the pancreas. However, in a diabetic, the body either does not make enough insulin (Type 1 diabetes), or cannot use the insulin it produces (Type 2 diabetes). In some cases, it could be a combination of both.

To treat Type 1 diabetes, a condition affecting three out of 100,000 children of 0–14 years, doctors recommend the use of insulin injections, insulin pumps, or transplantation of either the whole pancreas or islet cells — part of the pancreas that produces insulin. Recently, there has been considerable progress in developing bioartificial pancreas with islet cells which mimic the function of a natural pancreas. However, a persistent roadblock has been the issue of biocompatibility — the body treats the bioartificial pancreas as a ‘foreign’ object, triggering the immune system’s response, which can degrade the function of the artificial pancreas.

In this study, the researchers have developed a bioartificial pancreas using polymer based hollow fibre membrane that is biocompatible and can also grow and sustain insulin producing cells on it. “A hollow fibre membrane is a narrow tube about 1 mm in diameter with pores in the wall ”, explains Prof. Jayesh Bellare from IIT Bombay, who led the study. “When liquid is passed through the tube (also called lumen), the wall selectively retains certain constituents and allows others to pass through”, he says, adding that this sort of ‘selective separation’ is used in many processes, including dialysis.

The researchers made these patented hollow fibre membranes using a polymer called polysulfone, which is known for its toughness and stability, with an additive compound called TPGS (d-α-Tocopheryl polyethylene glycol 1000 succinate). “The advantage of our hollow fibre membrane is that it supports the cells to grow by mimicking the extracellular matrix in which the cells naturally grow, and simultaneously, allows insulin to reach the patient while preventing an immune reaction from cells if they are of foreign origin”, remarks Prof. Bellare.

The inner side of the hollow fibre membranes developed by the researchers has pores in the nanometer range and is responsible for the selective separation of insulin. The rest of the membrane is more porous and has bigger pores which provide support. The researchers made the bio-artificial pancreas by placing together one or more hollow fibres to form a small bioreactor — a container-like structure where insulin is produced.

The researchers have tested their device with both human stem cells derived from umbilical cord, as well as islet cells from pig pancreas. “For the first time ever, we have successfully encapsulated human stem cells and porcine cells in our novel and patented material derived hollow fibre membrane”, says Prof. Bellare. The researchers then implanted these devices into diabetic mice for 30 days and found that these implants caused no abnormalities to other organs. In addition, the immune cells of the mice did not attack the implants, and blood vessels were also seen growing on the cells of the implants.

The research could improve the quality of life for more than 542,000 children in the world living with Type 1 diabetes. So how far are we from seeing this bioartificial pancreas in action? “Although there is a long way to go for making islet transplantation a cure for diabetes, but with the right material and cell type, this can become a reality”, says Prof. Bellare. As a next step, the researchers plan to continue studying the how the new device behaves in large animals. “Much more will be needed to bring this in human trial; the basic technology has been demonstrated in our work”, he concludes.

IIT-M to focus on strengthening research capabilities

http://www.thehindu.com/todays-paper/tp-national/tp-tamilnadu/iit-madras-turns-spotlight-on-research/article23597218.ece

Bhaskar Ramamurthi

International collaboration projects essential to improve quality, stresses Director

In the quest for quality, there is a focussed approach to research and international collaboration in the next strategic plan of the Indian Institute of Technology-Madras.

Five years ago the IIT-M put in place a strategic plan to make a systematic analysis of its performance in comparison to foreign institutions. It studied the performance of its faculty members and implemented the Kakodkar Committee’s recommendation to produce more Ph.Ds.

“This move by the IITs translated to each faculty [member] having four or five engineering Ph.D students at any given time. Unlike in my time [as a faculty member] when I had one or two students at a time working in isolation, now students working in groups learn from each other,” said IIT-M Director Bhaskar Ramamurthi.

The Institute assesses the amount and quality of research articles published by its faculty members. The impact of this exercise could be seen over a period of years. The analysis helps quantify not only the contribution to general knowledge in a particular area but also how often the research papers are read by faculty members in other reputable institutions. “Internally we look at the journals in which faculty from the top 50 institutions publish. By and large they go to a certain set of journals. We have a histogram done and see if my faculty and students publish our papers in them and if we are improving in numbers,” he says.

Professors must participate in at least the major conferences in their subject. The argument that air travel is expensive doesn’t hold good anymore. “If they are not showing up at conferences it is very

negative. Equations change. From the Institute's point of view it is foolish not to send a faculty member for a conference. Even for research scholars it is better to send the students to a conference. Compared to the total scholarship amount of Rs. 16 lakh, the cost of attending a conference is small. We should not look at it as a 'foreign trip'," he says.

Recall factor

Researchers must communicate. It is recall of a face and a name that matters even for researchers. So they must meet up and dine with them too. There is no place anymore for a "cubby hole" researcher. "If for major conferences you go as a team, suddenly the perception of the institute changes. You have to get over [the perception] that a foreign trip is a big issue. It is not. It is not an expense point," he says.

"It is important to invite them or make sure they drop by, have people come, and only then research at a global level will take off. Then collaborations will happen. The best people are getting it done. That is also there in our strategic plan," Prof. Bhaskar says.

Chair professor

A professor with 10 years' service is eligible to apply for chair professorship. A financial incentive is provided from the institute's corpus, raised from its alumni and donors.

April 18

Water-less bathing, intelligent artificial legs among innovations at IIT Delhi

https://www.hindustantimes.com/delhi-news/iit-delhi-s-open-house-will-provide-solution-from-pollution-to-disability/story-pgcv9WYJDaOeMM0IgV2GEM.html

The IIT-Delhi Open House will showcase the latest tech innovations developed by students, which include a low cost gadget to convert agro waste into pulp, nasal filter and even a flow battery for solar energy storage.

The intelligent artificial legs have sensors in shoes to adapt to movement.

To prevent burning of crop residue that results in air pollution in Delhi, students and professors of the Indian Institute of Technology, Delhi, have developed an eco-friendly technology to convert the agro-waste into pulp at lower scales unlike industries that require heavy machinery.

The project, along with other innovations, will be showcased to the general public on April 21 at the 14th edition of the IIT-Delhi's Open House.

"The pulp, made using a biodegradable solvent developed by us, can be used to make cups, plates and tableware," said professor Neetu Singh from the Centre for Biomedical Engineering. She worked on the project along with three students.

Other projects include a nasal filter that costs Rs 10 and filters out PM 2.5 and other pollutants, a flow battery for solar energy storage, intelligent artificial legs that have sensors in shoes to adapt to movement and a product for waterless bathing that can address the needs of patients, travellers and armed forces in water-scarce areas.

Students from over 50 schools across the city and several engineering colleges in Delhi, Punjab and Haryana are expected to attend the exposition. Visitors can see live displays of the projects, interact with project developers and industry experts and have a guided tour of the laboratories.

Some of the other key projects focus on helping the visually impaired by providing easy and affordable access to information through paperless electronic Braille, and through non-visual representations of diagrams in tactile form.

V Ramgopal Rao, director, IIT-Delhi, said the institute aims to focus on developing technologies to address issues faced by people in everyday life. He said this could be achieved by inter-disciplinary research. "We are having a tie-up with All India Institute of Medical Sciences, Delhi, under which engineers will work with doctors to develop technology solutions in the field of medicine," he said.

Rao said that starting June, 50 students from the institute will spend two months in villages to learn more about the problems faced by people in rural areas. "The students will be given options of areas to work on such as agricultural issues, open defecation, water scarcity and waste disposal. They will then be assigned villages where they will work to find solutions to the problems," he said.

The institute is also a fellowship project for research students to convert their PhD research idea into a start-up. "It will be the platform for harnessing deep-technology (PHD) and provide financial assistance, accommodation and other facilities to research students for two-three years," he said.

April 17

IIT Delhi's 'Open House' to begin on Apr 21, innovative products to be on display

http://www.business-standard.com/article/pti-stories/iit-delhi-s-open-house-to-begin-on-apr-21-innovative-products-to-be-on-display-118041701194_1.html

A durable intelligent artificial leg and an affordable pocket gadget for soil testing are among the new innovative products developed by students of the IIT Delhi.

The products are outcome of research projects by students, staff and faculty and will be on display at the fourteenth edition of 'Open House'.

The intelligent artificial leg uses smart-sensing technology in shoes to adapt to the movement of the user, officials said.

"We look forward to provide opportunities for visitors to experience the state-of-the-art innovations of our students and faculty at IIT Delhi.

"It is our objective to create a nurturing eco-system for students to inspire them to work on innovative solutions for our socio-economic challenges," Director, IIT Delhi, V Ramgopal Rao, said.

A live display of pioneering research projects, technical workshops by industry experts and a guided showcase of the on campus laboratories are some of the highlights of the scheduled on April 21.

Some of the other products that will be on display include an upper lim robotic rehabilitation device for objective physiotherapy in case of a stroke, a nasofilter, an affordable pocket spectrophotometer for field diagnosis and soil testing, and digitally accessible braille.

"IIT Delhi's Open House is a platform for the culmination of a year's worth of inimitable innovations undertaken by students and faculty alike," said SK Khare, Associate Dean, Research and Development, IIT Delhi.

इन छात्रों को बिना प्रवेश परीक्षा दिए मिलेगा IIT और IIM में दाखिला

https://www.livehindustan.com/career/story-these-students-will-be-given-admission-in-iit-and-iim-without-admission-test-1908900.html

देश में शिक्षा हासिल करने वाले विदेशी छात्रों की संख्या बढ़ाने के लिए केंद्रीय मानव संसाधन विकास मंत्रालय बुधवार को स्टडी इन इंडिया शुरू करने जा रहा है। इसके तहत, इस साल विदेशी छात्र बिना प्रवेश परीक्षा दिए आईआईटी और आईआईएम जैसे संस्थानों में शिक्षा हासिल कर सकेंगे। वहीं, अन्य संस्थान इन विदेशी छात्रों को फीस में छूट प्रदान करेंगे। हालांकि, इसके तहत भारत सरकार की ओर से विदेशी छात्रों को कोई छात्रवृत्ति नहीं मिलेगी।

केंद्रीय मानव संसाधन विकास मंत्रलय के एक वरिष्ठ अधिकारी ने बताया कि स्टडी इन इंडिया नाम से वेबपोर्टल बनाया गया है। यह पोर्टल भारत में पढ़ने के इच्छुक विदेशी छात्रों के लिए सिंगल ¨वडो का काम करेगा। इसके जरिए छात्र भारत के विभिन्न संस्थानों की जानकारी हासिल कर पाएंगे और

सीधा आवेदन भी कर सकेंगे। भारत सरकार का पोर्टल होने के नाते इसकी विश्वसनीयता भी होगी। इस पोर्टल में आईआईटी रूड़की, सिंबॉयसिस समेत 60 से अधिक उच्च शिक्षा संस्थान जुड़ चुके हैं। इसी अकादमिक सत्र से इन संस्थानों के लिए आवेदन लेना शुरू कर दिया जाएगा।

अधिकारी ने कहा कि देश से 5 लाख से अधिक छात्र विदेश पढ़ने जाते हैं, वहीं हमारे यहां मात्र 45 हजार विदेशी छात्र आते हैं। इसमें भी ज्यादातर वे छात्र होते हैं, जिन्हें वजीफा मिलता है। जबकि, अन्य विकसित देशों के मुकाबले हमारी शिक्षा काफी सस्ती और बेहतर है। इसलिए हमें पूरी उम्मीद है कि व्यापक प्रमोशन में हमारे यहां के छात्रों की संख्या में इजाफा होगा। अधिकारी ने कहा कि जो हम अब करने जा रहे हैं, वह ऑस्ट्रेलिया पिछले तीन दशक से कर रहा है।

30 देशों पर फिलहाल फोकस

अधिकारी ने बताया कि स्टडी इन इंडिया कार्यक्रम को वीजा और अन्य सुरक्षा उपायों के चलते नुकसान न पहुंचे इसके लिए केंद्रीय मानव संसाधन विकास मंत्रलय, विदेश और गृह मंत्रलय के संपर्क में है।

विदेश व गृह मंत्रालय साथ

अधिकारी ने बताया कि मंत्रलय का फोकस फिलहाल 30 देशों पर हैं, जो सार्क, पश्चिमी एशिया, पूर्वी एशिया और अफ्रीका महाद्वीप से आते हैं। इन देशों में भारतीय दूतावासों और वाणिज्य दूतावासों पर एक-एक स्टडी इन इंडिया कार्यक्रम का भी प्रतिनिधि नियुक्त किया जाएगा।

900-Year Drought Wiped Out Indus Valley Civilization, Shows IIT Kharagpur Research

https://littleindia.com/900-year-drought-wiped-out-indus-valley-civilization-shows-iit-kharagpur-research/

Monsoon was weak from 2,350 BC till 1,450 BC in the region where Indus Valley civilization flourished, according to the research.

A 900-year drought was responsible for wiping out the Indus Valley Civilization 4,350 years ago, scientists at the Indian Institute of Technology (IIT), Kharagpur, have found, the Times of India reported. The evidence gathered during their study is a a significant development that reconfigures our understanding of the civilization and its progress, and also counters theories that said the drought lasted only for 200 years.

The Indus Valley Civilization was one of the most widespread of the ancient civilizations, covering present-day India, Pakistan and Afghanistan with an area of about 1.5 million sq km. It is known for its well-developed infrastructure, architecture, and metallurgy, besides having trade relations and cultural ties with other concurrent civilizations across the world.

The team at IIT Kharagpur, along with members from the Wadia Institute of Himalayan Geology, Dehradun, and the Institute of Estuarine and Coastal Research, Shanghai, China, mapped the

variability of monsoon of 5,000 years in Ladakh's Tso Moriri lake, which is situated in the Changthang plateau, a part of the larger Tibetan plateau geographically. It was fed by the same glacial source as the Indus river. The mapping identified periods that had continuous spells of good monsoon as well as the weak and negligible phases.

"The study revealed that from 2,350 BC (4,350 years ago) till 1,450 BC, the monsoon had a major weakening effect over the zone where the civilization flourished. A drought-like situation developed, forcing residents to abandon their settlements in search of greener pastures," Anil Kumar Gupta, the lead researcher and a senior faculty of geology at the institute, was quoted as saying in the report.

The development, which will be published in the Quaternary International Journal by Elsevier this month, will also give an insight into the nature of migration across the Indian landmass and subsequent making of caste groupings and languages. Headquartered in New York, Elsevier is an information and analytics company and one of the world's major providers of scientific, technical, and medical information.

The rains were absent from the Himalayas for 900 long years, as per researchers from geology and geophysics department. Monsoon playing truant, and dried up the source of water for the river along which the civilization thrived. This drove the inhabitants towards the east and south where the weather was better. The hardy inhabitants of the region gradually migrated to the Ganga-Yamuna valley towards eastern and central Uttar Pradesh; Bihar and Bengal in the east; and Madhya Pradesh, the south of Vindhyachal and south Gujarat in the south, Gupta added.

The first large-scale excavations of the civilization were conducted in the 1920s by British explorers. Researchers claimed in 2016 that the Indus Valley civilization began nearly 2,500 years earlier than thought, which means it began nearly 8,000 years ago, making it older than the Mesopotamian and Egyptian civilizations. The revelation prompted the debate over whether Middle-Eastern settlements can be considered as the "Cradle of Civilization."

April 15

Centre ties up with IIT-Delhi for safety switches on vehicles

http://www.thehindu.com/news/national/centre-ties-up-with-iit-delhi-for-safety-switches-on-vehicles/article23550273.ece

On the occassion of International Women's Day, the Delhi government launched a pilot project of the Panic Alarm System for state-run buses of the Delhi Transport Corporation (DTC) to ensure the safety of women passengers and to encourage them to use modes of public transport.

Aimed at women's security, the panic button will sound an alarm when pressed

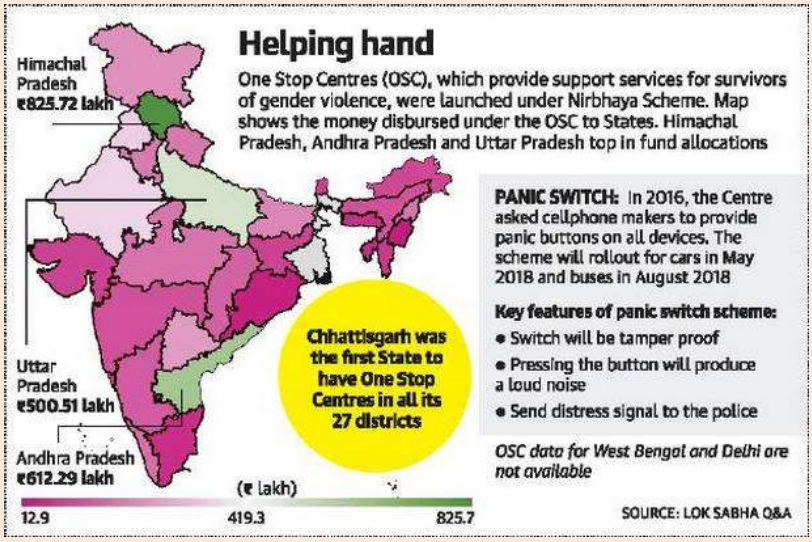
Under pressure on the issue of safety of women in the country, the NDA-government has turned to technology for a solution. The Ministry of Electronics and IT in partnership with IIT-Delhi is working on a switch-based device in cars and buses to aid safety of women.

"We are using technology to ensure help in case of distress while travelling in public transport. The proposed panic switch system when invoked will generate a loud alarm in the vehicle which will attract public attention, and send the coordinates of the person to a server (police control room) to provide necessary help," a senior ministry official said.

Ensures system health

The system will include features such as authenticating the driver of the vehicles and a camera interface. "The system is designed [to] monitor that health of the switch…whether it is in proper working condition or not, and it will also enable tamper proof operation," the official said.

The field trials for the beta version of the system are already underway, and the Ministry expects to start rolling out the final version by next month. "The first version has been field tested and final version is expected in May, 2018 for cars and by August, 2018 for buses," the official said.



From Nirbhaya fund

The project, being developed by IIT-Delhi, is being funded by the Nirbhaya Fund, set up in 2013 for implementation of initiatives aimed at enhancing the safety and security of women in the country. However, the government has been facing criticism for under-utilisation of the fund.

The total number of crimes registered against women in the country during the year 2014, 2015 and 2016 were 3,39,457, 3,29,243 and 3,38,954, respectively, showing a mixed trend with a decline of 3.0% in 2015 over 2014 and an increase of 2.9% in 2016 over 2015, as per the government data.

In 2016, the government had announced plans to make it mandatory for mobile phone makers to provide a panic button on the device starting January 2017. However, the plans were delayed by almost a year. The trial for the system finally started in U.P. earlier this year.

TEDxDelhi commences today at IIT Delhi

https://www.devdiscourse.com/Article/4060-tedxdelhi-commences-today-at-iit-delhi/Middle%20East%20and%20North%20Africa

TEDxDelhi, one of India's biggest and oldest TEDx events brings together sought-after thought leaders, idea mavens, contrarians and youth icon to share and explore the"idea of their lifetime."

TEDxDelhi 2018 has commenced today at IIT Delhi under the theme 'The Future of Humanity'. The event is being attended by over thousands of the smartest change makers in the country.

This year TEDxDelhi is focussing on Humanity and what it means. Humanity is not easy to understand and is often misunderstood. The stage is being shared by over 25 speakers and performers, each with an idea as surprising and world-changing as the next. A number of niche performers and undiscovered artists and art forms will engage the brain.

TEDxDelhi, one of India's biggest and oldest TEDx events brings together sought-after thought leaders, idea mavens, contrarians and youth icon to share and explore the "idea of their lifetime."

TEDxDelhi is a focused, intimate and relatable setting where people who are deeply interested in ideas that can define our future, change the way we think and have an impact on the world get together to share their brain-trust. It brings together creative and forward-thinking young people from Delhi-NCR that are as fascinating and accomplished as the speakers themselves.

Four IITs, CPCB to monitor grossly polluting industries along Ganga river

http://www.dnaindia.com/india/report-four-iits-cpcb-to-monitor-grossly-polluting-industries-along-ganga-river-2604993

Ganga river A file photo of Ganga river

The Central Pollution Control Board (CPCB) has initiated the annual inspection of grossly polluting industries (GPI) along the main stem of Ganga river. The pollution watchdog has authorised four Indian Institute of Technology (IIT) institutions and eight other technical institutions to inspect the industries across the chemical, distillery, sugar, pulp and paper, textile, dyeing, bleaching, slaughterhouse, tannery, food and dairy categories.

To this effect, CPCB issued directions to Uttarakhand, Uttar Pradesh and Bihar and West Bengal governments and the state level project management groups of Clean Ganga mission to cooperate with the 12 technical institutions.

IIT-Delhi. IIT-Roorkee, IIT-Kharagpur, IIT-(BHU), Varanasi; National Institute of Technology, Patna; Motilal Nehru National Institute of Technology, Allahabad; Jadavpur University, Kolkata; Aligarh Muslim University and Jamia Millia Islamia will be authorised to carry out inspections along with state pollution control boards.

In January this year, secretary, ministry of water resources and director-general, National Mission for Clean Ganga had held a meeting with CPCB state boards. It was decided in the meeting that technical institutions will be engaged to carry out inspection of grossly polluting industries along the main stem of Ganga and its tributaries.

April 14

IIT Delhi pioneers research on 5G in India, network likely to make an entry by 2021

https://theprint.in/governance/iit-delhi-pioneers-research-on-5g-network-likely-to-make-an-entry-by-2021/49615/

IIT Delhi | Commons

Next generation wireless technology promises 20-25 times faster speeds, India joins research for the first time after missing out in the past.

With the Indian Institute of Technology (IIT) Delhi pioneering research on fifth generation wireless communication (5G) in India, the network is set to make an entry in the country by early 2021.

Internet speeds in 5G networks are expected to be about 20 to 25 times faster than 4G. The exact speed in technical terms is not yet final, as 5G technology is yet to be standardised across the world. Researchers believe the final agreement on technical aspects will be achieved within the next couple of years.

Currently there is no country in the world which has a functional 5G network. Most countries so far are only researching 5G — the likes of Sweden and Britain started their research a couple of years ago. India has only now started active research, in co-operation with industry partners.

India had made no contribution to research on the previous generations, but 5G promises to be different.

“With the Indian government launching a number of digital initiatives and urging people to do most of the things online, this research will be very important,” said IIT Delhi deputy director M. Balakrishnan.

Key focus areas

On Friday, IIT Delhi inaugurated the country’s first 5G research lab. The IITs had been allotted Rs 250 crore for 5G research in this year’s Union Budget, of which IIT Delhi has so far used Rs 30 crore to set up the lab and begin research.

Saif Khan Mohammed, a professor working on the project, told ThePrint: “This research is crucial because a 5G network is not just going to provide good internet connectivity on phone or a single device; it will have a much better inter-device connectivity. One can make a video call easily from a phone to a computer and the clarity will almost be like virtual reality.

“This can aid in surgeries also. A doctor sitting in the US can perform a surgery upon a man in a village in Africa through a robotic controlled arm, thanks to such calls.”

Everything from smart home appliances to smart cars will work much better with 5G. “It is estimated that smart devices, of which there are currently 2 billion, will go up to 50 billion by the year 2020. In that scenario, a much better internet network will be needed for the devices to work,” said Mohammed.

However, researchers are also aware of the risk of devices being hacked if they are interconnected. This is why one team is specifically researching the security aspects of 5G.

Pilot project improving primary care: Indian Institute of Technology study

https://deccanchronicle.com/nation/current-affairs/140418/pilot-project-improving-primary-care-indian-institute-of-technology-s.html

The UHC-pilot was launched in early 2017 in three blocks of the state to strengthen the primary health care services.

Being the closest delivery points to the community, Health Sub-Centres (HSCs) were identified as the main building blocks of the project.

CHENNAI: Recent research by Indian Institute of Technology - Madras has shown that Universal Health Care (UHC) Pilot Project in three rural blocks of Tamil Nadu has improved access to primary care at sub-centre level. UHC pilot was launched in three rural blocks of Shoolagiri, Viralimalai and Veppur in Krishnagiri, Pudukkottai and Perambalur districts.

The study, titled 'Universal Health Coverage-Pilot in Tamil Nadu: Has it delivered what was expected?' - was undertaken by Centre for Technology and Policy, Department of Humanities and Social Sciences, IIT Madras. The UHC-pilot was launched in early 2017 in three blocks of the state to strengthen the primary health care services.

Being the closest delivery points to the community, Health Sub-Centres (HSCs) were identified as the main building blocks of the project. The research attempted to find the extent to which the UHC pilot has effectively improved access to HSCs and reduced out of pocket expenditure for primary care in the community. The study revealed that the UHC pilot brought about a significant fall in the overall dependence on private providers, particularly those seeking care from private hospitals. It also brought about a substantial fall in the out of pocket expenditure among those seeking out patient care from both public and private providers.

After the implementation of UHC Pilot, the HSCs now account for 17.8 percent of all out-patients in Shoolagiri block, 14.8 per cent in Viralimalai block and 23.1 per cent in Veppur block. Shares of private hospitals for outpatient care have dropped significantly during pre-UHC pilot period in 2015-16 and post-UHC pilot period in December 2017. While it changed from 51 per cent to 21 per cent in Shoolagiri block, Viralimai and Veppur block had a change from 47.8 per cent to 24.2 per cent and from 40.9 per cent to 23.9 per cent respectively.

IIT Madras has submitted the report on the research to the Department of Health and Family Welfare, Government of Tamil Nadu. Speaking about the research, Prof V.R. Muraleedharan, Department of Humanities and Social Sciences, IIT Madras, said, "The report provides evidence in support of increased access to HSCs, diversion of patients from higher level public facilities and diversion of patients from private hospitals.

There is significant reduction in out of pocket expenditure for patients seeking care from both public and private facilities, and significantly lower cost of provision of OP care per visit in pilot HSCs, than when they are provided at higher levels of public facilities."