Newspaper Clips
April 7-13, 2018

April 13

IIT Madras faculty awarded first Abdul Kalam Fellowship

http://www.thehansindia.com/posts/index/Young-Hans/2018-04-12/IIT-Madras-faculty-awarded-first-Abdul-Kalam-Fellowship-/373552

Prof. Krishnan Balasubramanian ,Indian Institute of Technology Madras

Chennai: Indian Institute of Technology Madras Faculty Prof. Krishnan Balasubramanian has been awarded the first Abdul Kalam Technology Innovation National Fellowship by Indian National Academy of Engineering (INAE) in 2018.

This prestigious Fellowship has been recently instituted to recognise, encourage and support translational research by individuals who have achieved excellence in engineering, innovation and technology development.He is currently a Chair Professor in the Department of Mechanical Engineering, IIT Madras, and also serves as the Head of the Centre for Nondestructive Evaluation which he founded in 2001.

Speaking about the Fellowship, Prof. Krishnan Balasubramanian said, “I am glad that INAE and Department of Science and Technology (DST) have instituted this award to recognize the technology innovators in India. I am humbled by this recognition.”

The Fellowship will support Prof. Krishnan Balasubramanian in conducting advanced research in the area of Ultrasonic Waveguide Sensor Systems. This Technology Innovation Fellowship is for three years and extendable further by a period of two years.

The award citation includes “This honour is indeed a befitting recognition of your outstanding contributions in the field of Non-destructive Evaluation and Sensors as well as your leadership role in the growth of the engineering profession in the country.”

It further states “Therefore your research has to lead to deliverables in terms of development of a product, its validation and commercialization of the product based on novel technology.”

He received his undergraduate degree in Mechanical Engineering from the University of Madras (Regional Engineering College, Tiruchirapalli, India) in 1984. He then graduated from Drexel University with a M.S. degree in 1986 and a Ph.D. in 1989. He has over 410 technical publications (including 210 refereed journal papers), 17 patents filings and has directed 23 PHD student dissertations and 46 MS student theses.

Govt. Confirms 779 New Seats for Female Candidates in IITs from This Year & it’s a Great Step

https://chandigarhmetro.com/new-seats-779-for-female-candidates-in-iit-india-from-this-year-check-full-details/

The Indian Institutes of Technology (IITs) are collectively offering 779 seats for female candidates from new academic session.

The Indian Institutes of Technology (IITs) have collectively decided to increase the number of seats available for all the female aspirants by adding 779 more seats for them. This came as a good news for all the female aspirants of pursuing their B.Tech from an IIT. The Indian Institute of Technology (IIT) are known to be autonomous institutions for the public in order to pursue their higher education in esteemed colleges and universities located in India. These are globally acclaimed institutions which offer study and research work in various fields like engineering, science, management as well as humanities.

In the recent scenario, it has been felt that the composition of the female students studying in the different IITs across the country has either remained more or less constant fluctuating in between 8-10 percent. Also, in the postgraduate courses in the IITs, on an average, the gender ratio stands to 22 percent. Therefore, exclusively for the female candidates, the Indian Institutes of Technology (IITs) have collectively decided to offer as many as 779 numbers of seats exclusively to the female candidates.

Out of the total 779 seats, the highest number of seats that is 113 seats belong to IIT Kharagpur which are followed by 95 seats belonging to IIT Dhanbad, 79 seats with IIT Kanpur, 76 seats with IIT BHU, 68 seats with IIT Roorkee, IIT Delhi with 59 seats, IIT Bombay with 58 seats as well as IIT Guwahati with 57 number of seats. With the increased number of seats, female candidates can now openly opt to pursue their B.Tech degrees from esteemed colleges within the country.

In a collective initiative by the IITs, with a motive to make an improvement in the poor gender ratio which has been experienced in the B.Tech programs in different IIT universities and colleges, the number of seats for female candidates has been increased exclusively.

It was observed that a considerable number of women clear the JEE Advanced Exam but the actual representation of the same is less than 10 percent because of 'societal biases'.

All the female candidates who will be qualifying the JEE Advanced shall be considered so that equal opportunities are provided for them to pursue their B.Tech programs in different IITs located across different locations in the country.

April 12

Gujarat University to inaugurate virtual lab set up by IIT and HRD today

http://www.dnaindia.com/ahmedabad/report-gujarat-university-to-inaugurate-virtual-lab-set-up-by-iit-and-hrd-today-2603872

Gujarat University The university has been designated a regional nodal centre

A virtual laboratory set up by the Ministry of Human Resources Development and the Indian Institute of Technology Bombay will be inaugurated at Gujarat University on Thursday.

Gujarat University was designated as a regional nodal centre for 'virtual labs' last year and will provide users to perform experiments remotely along with a complete Learning Management System that includes web resources, video lectures, animated demonstrations and self-evaluation.

Nearly 30 principals from colleges across the state will get trained by the faculty of IIT-Bombay at Gujarat University on Wednesday.

Dr Himanshu Pandya, vice-chancellor, Gujarat University, said, "These IT enabled labs are designed to provide remote access to physical labs in various diciplines across Sciences and Engineering. Physical distances and the limited availability of resources often put restrictions on conducting experiments especially when they involve sophisticated instruments. Also, many a time when students are directly exposed to such sophisticated machinery, it has been seen that machines suffer damage."

The virtual labs platform shall be initially available at a large-scale computer laboratory in the university campus and will be accessible by all students.

Plans are also afoot to expand the virtual labs to affiliated colleges based on the need of students.

Pandya further added, “Twenty-four colleges have consented to visit the university on Wednesday to receive training. And under GU, there will be 30 such centers. Hands-on training will be imparted to principals of colleges, and students will be able to conduct more than 1,000 scientific experiments. If we add various departments of GU, then in all, there will be a total of 40 centres in Gujarat.”

April 11

IIT-Delhi to launch first 5G radio lab

http://indianexpress.com/article/cities/delhi/iit-delhi-to-launch-first-5g-radio-lab-5132435/

The Massive Multiple-Input Multiple-Output (MIMO) technology lab will be inaugurated on Friday. It has been set up at the Bharti School of Telecommunication Technology and Management, at IIT Delhi.

The Indian Institute of Technology (IIT) Delhi is set to inaugurate a first-of-its-kind 5G radio laboratory on campus, which is likely to reduce effects of exposure and radiation compared to the 3G/4G systems.

The Massive Multiple-Input Multiple-Output (MIMO) technology lab will be inaugurated on Friday. It has been set up at the Bharti School of Telecommunication Technology and Management, at IIT Delhi.

Professor Saif Khan Mohammed, an associate professor of the Department of Electrical Engineering, and his team have been researching on MIMO systems for the last five years.

“This 5G base station prototype will be used for developing a complete 5G base station, which can possibly lead to the manufacturing of 5G base stations in India with support/collaboration from the industry. It will also be instrumental in generating skilled manpower,” he said.

“In Massive MIMO, several antennas are deployed at the base station, as compared to only a few antennas in 3G/4G. This improves system power efficiency, as the mobile terminals will now be required to radiate ten times lesser power than in 3G/4G systems. This, in turn, reduces interference to other radio systems and also reduces possible effects of exposure to radiation on our health,” said Mohammed.

IIT Delhi Director V Ramgopal Rao, a member of the High Level Forum for 5G India 2020, said the institute was committed to contributing “towards national goals for establishing India as a major player in 5G technologies”.

IIT-Madras PG students to interact with defence experts

https://timesofindia.indiatimes.com/city/chennai/iit-madras-pg-students-to-interact-with-defence-experts/articleshow/63706864.cms

CHENNAI: About 100 postgraduate students of various disciplines from IIT Madras will be interacting with defence industry experts and senior officers of the armed forces as part of the DefExpo 2018 being held from April 11 to 14. These students of MS/ M Tech / PhD streams are attending the newly introduced course on 'overview of defence technologies' and will be interacting with the defence personnel to complete their field projects.

IIT-M also said it will also be showcasing initiatives for further indigenisation of critical defence technologies during the expo. Prof Ravindra Gettu, dean (industrial consultancy and sponsored research), said that the institute is eager to work with companies to develop relevant solutions for enhancing aspects of national security.

The institute has joined hands with Bharat Shakti (a platform for defence industry) to conduct a seminar on April 11 on "Technology Perspectives for the Armed Forces' during which various topics like artificial intelligence and impact on battle field, infrastructure technology will be covered.

IIT Madras to showcase initiatives for critical Defence technologies at DEFEXPO 2018

https://jobs.siliconindia.com/career-news/IIT-Madras-to-showcase-initiatives-for-critical-Defence-technologies-at-DEFEXPO-2018-nid-204060.html

Indian Institute of Technology Madras will showcase its recent initiatives for further indigenization of critical Defence Technologies during the DEFEXPO 2018 being held in Chennai from 11th to 14th April 2018. The Institute has taken the lead to transfer knowhow and collaborate with the Armed Forces and the defence Sector and further the 'Make in India' concept in defence technology.

In a first-of-its kind initiative, IIT Madras has set up a stall in Hall No. 6 at the DEFEXPO 2018 to connect with the Defence Industry at the grassroot levels. IIT Madras has been open to partnerships with various sections of Defence Industry and assist them in developing cutting-edge technologies to help the Armed Forces.

Speaking about the participation of IIT Madras in DEFEXPO 2018, Prof Ravindra Gettu, Dean (Industrial Consultancy and Sponsored Research), IIT Madras, said, "We are ready and eager to work with companies in the Defence Sector and the Armed Forces to develop relevant solutions for enhancing the security of our nation."
IIT Madras has joined hands with Bharat Shakti (a platform for defence industry) to conduct a seminar on 11th April 2018 on “Technology Perspectives for the Armed Forces.”

Artificial Intelligence and Impact on Battle field, Infrastructure Technology for Border Areas, Energy for Armed Forces, Enhancing the Battle field space, Secure Communications for the Armed Forces and Space Based Surveillance were covered during the Seminar by experts of IIT Madras.

Elaborating on the participation of IIT Madras in the expo, Prof. P. A. Ramakrishna, Department of Aerospace Engineering, IIT Madras, said, "This gives the faculty of IIT Madras the opportunity to exhibit their contribution towards defense technology. I would like to thank Lt. Gen. (retd.) P R Shankar, who has joined our department as ‘Professor of Practice’, for having encouraged us to take part in this big event."

About 100 MS/ M Tech / PhD students of various disciplines who are attending the newly introduced course on ‘Overview of Defence Technologies’ will be interacting with the defence industry to complete their field projects. They had a special session with the industry and senior officers of the Armed Forces for operational orientation on 11 April in the afternoon.

The tenth edition of the Defence Expo is being held from 11th to 14th April 2018 at Thiruvidanthai in south Chennai. The expo will be formally inaugurated by the Shri Narendra Modi, the Honourable Prime Minister of India, on 12th April 2018.

The four-day exhibition will showcase the strengths of India's defence public sector and uncover the country's growing private industry. It will see participation from 47 foreign countries including the US, the UK, Russia, Afghanistan and Sweden, Finland, Italy, Madagascar, Myanmar, Nepal, Portugal, Seychelles and Vietnam.

Only 30% cops available to regulate traffic

https://timesofindia.indiatimes.com/city/patna/only-30-cops-available-to-regulate-traffic/articleshow/63686851.cms

PATNA: The state capital requires at least 2,428 police personnel for regulating traffic, but there are only 742 police personnel to manage thousands of vehicles passing through the city thoroughfares

every day.
According to the Bureau of Police Research and Development (BPRD) norms, at least one constable is required for every 850 vehicles in a district for proper traffic regulation. In addition, for any capital city, 5% additional constabulary is required. However, according to sources, Patna traffic police is working with the strength which was required 14 years back.

“At that time, there were around five lakh vehicles plying on the roads in Patna district. However, against the sectioned strength of 1,233, only 742 police personnel are available for regulating traffic in the district till January this year,” a senior police official involved in traffic regulation said.

As per BPRD norms, at least 38 inspectors, 150 sub-inspectors (SIs) & assistant sub-inspectors (ASI) and 2,240 constables are needed for traffic regulation in Patna. One SP, three DSPs, two inspectors, 53 SIs, 33 ASIs, 76 havildars and 660 constables and 400 home guard jawans are sanctioned, but only one SP, two DSPs, 42 SIs, 44 ASIs, 42 havildars, 342 constables and 277 home guard jawans are made available to manage traffic in Patna, the officer said.

“Out of the available force, 43 police officers, 33 havildars, 162 constables and 247 home guard jawans have been roped in from either other districts or from Bihar Military Police (BMP),” sources said.

“According to the data available with the Patna district transport office, 14,05,261 vehicles of different segments were registered from January 2005 to January this year.

A case study available on IIT Kanpur’s website states that there were 4,384 registered motor vehicles in Patna in 1981 and the number increased 67 times to 2,94,164 in 2001. The study also highlighted the lack of any road network as every individual road changes its characteristics after a short distance.

According to police sources, the city traffic has deteriorated fast in the last couple of years due to heavy pressure of vehicles on its roads while the traffic signals have played almost negligible role in improving the situation. “No major step has been taken to broaden the roads across Patna while uncontrolled autorickshaws and massive encroachments have aggravated the traffic situation in the district,” a senior traffic police officer said. He also said a plan to regulate autorickshaws on different routes was also submitted to the senior officials, but to no avail.

It may be mentioned that the only traffic training school in Hazaribagh is in Jharkhand and Bihar has failed to open any new institute since its bifurcation in 2000.

Few takers for government's flagship PM Research fellowship at IITs, IISc

http://www.newindianexpress.com/nation/2018/apr/11/few-takers-for-governments-flagship-pm-research-fellowship-at-iits-iisc-1800090.html

NEW DELHI: Government’s flagship PM Research fellowship scheme for PhDs at IITs and Indian Institute of Science, Bangalore which had been touted as a measure to check brain drain of "brightest engineering minds" from premier institutes has been met with lukewarm response.

Official figures available with the human resource development ministry show that only 678 students have applied with their projects against 1000 fellowships on offer despite the deadline being extended once.

Sources in the ministry said that while a total of 2807 students had registered—only one fourth translated into actual applications till April 9. The deadline for the application ends on April 13.

The scheme, first announced in the Union budget this year, invited application from the engineering graduates from IITs, IISc, National Institutes of Technology, Indian Institute of Information Technology and Indian Institutes of Science Research and Education.

The scheme promises up to Rs 80,000 stipend to about 1000 students apart from Rs 2 lakh annual research grant and urges them to come up with research idea in subjects such as artificial intelligence, nanotechnology- among several others- with clear deliverables and outcomes.

The scheme is meant only for students who have the Cumulative Grade Point Average upward of 8.

A senior official in the higher education department of the HRD ministry said that the ministry “hopes to get more applicants” on last two days.

“We want the projects to be good even if less than 1000 fellowships are offered. Also, this year placement season in IITs was over by the time applications were invited so that explains fewer than expected applications,” he said. “We hope that the scheme will pick up from next year.”

Students at IITs meanwhile pointed out that unlike the undergraduate programmes at IITs, PhDs are considered less "prestigious".

“Only about 200-300 students from IITs prefer to do PhDs at IITs while most prefer to go abroad for better exposure and academic experience,” said a final year Computer Science student at IIT, Delhi.

“And for students who want to pursue doctoral or post-doctoral degrees foregoing the option of high-paying jobs, money is not very high on the priority list nor is what is being offered by the government very compelling.”

Government data shows that every year about 20 per cent brightest minds from premium engineering and technology institutes leave country either for jobs or higher studies.

UGC to Create “Online National Network” for Researchers

http://digitallearning.eletsonline.com/2018/04/ugc-to-create-online-national-network-for-researchers/

The University Grants Commission (UGC) on Tuesday asked all higher education institutions across the country to provide information on the existing government-funded equipment they own to create an “online national network”.

According to the UGC, the Government of India plans to establish “online national network” to enable researchers to utilise the facilities for their academic or non-academic research and development work.

"The Government of India has planned to establish an online national network that lists all the scientific, technical, analytical, research equipment facilities procured with funds provided by the agencies of the Government of India," UGC Secretary Rajnish Jain said in his letter to the institutions.

"The sharing of facilities through the online portal will bring down the cost of doing research across the country," he added.

April 10

Climate change could help harness power using off-shore wind energy: IIT-B researchers

https://timesofindia.indiatimes.com/city/mumbai/climate-change-could-help-harness-power-using-off-shore-wind-energy-iit-b-researchers/articleshow/63693122.cms

MUMBAI: Researchers at IIT-Bombay have suggested that global warming could be good news after all, for generating power using off-shore wind energy (from the sea bed). Debunking fears that the changing climate could have an adverse impact on power generation from offshore wind, researchers have concluded that Indian government should aggressively install their plants.

The Ministry of New and Renewable Energy has identified three locations – Kanyakumari, Rameshwaram and Jakhau – along the Indian coastline for their offshore wind farms. In a study published in the Royal Meteorological Society and Journal of Meteorological Applications, researchers at the Powai institute, have claimed that the rising sea temperatures will benefit the off-shore wind farms at these locations.

In fact, they conclude that the annual "average wind potential obtained at these sites might undergo a substantial increase over the next three decades as compared to the past three. It is expected to significantly rise to about 25%". However, this will be subjected to variations in the average wind potential over the monsoon and non-monsoon months. The study predicts that different sites are differently impacted by climate change; some show an increase in the power potential while it may drop at other places.

Professors Sumeet Kulkarni, M C Deo and Subimal Ghosh from the institute, who co-authored the paper 'Framework for assessment of climate change impact on offshore wind energy' have made use of the General Circulation Model (GCM) to study the impact of climate change in the specified locations.

"An earlier study by India's National Institute of Ocean Technology, Chennai has found that moving from onshore to offshore platforms results in increasing the capital cost by 111 %, but this is more than compensated by the rise in power production by 184%", added professor Deo.

Wind energy contributes to 12% of installed power in India. At present, most of this comes from the wind farms located on land. The IIT-B research approves the feasibility of government's ambitious plans of expanding energy generation from off-shore wind farms in the next five years.

IIT-Roorke opens new R&D lab to help small hydro power projects

http://www.millenniumpost.in/nation/iit-roorke-opens-new-rd-lab-to-help-small-hydro-power-projects-293715

In a major move aimed at giving a boost to growth of small hydropower industry to make compete in International market in hydroelectric power development, the the Indian Institute of Technology, Roorkee (IIT- Roorkee) has established an international class hydraulic turbine R&D laboratory at its Alternate Hydro Energy Center (AHEC). The lab has been established at a total cost of Rs 27 crore. The laboratory, which was inaugurated by Union Minister of State (I/C) for Power, New and Renewable Energy RK Singh, would act as a design and validation facility and also conduct research on hydro turbines and other hydro mechanical equipment conforming to national and international standards. Read This - Local train derails at Asansol station, none injured Given that India has the potential to generate 20,000 MW of power from small hydropower projects alongside rivers and irrigation canals, the government is aiming to harness at least 50 per cent of the potential in the next 10 years. The present installed capacity is about 4,500 MW. Read This - Rabri, Tejashwi 'return' state security; slam CM Hailing the achievement of IIT Roorkee, Power Minister Raj Kumar Singh said, "The turbine model testing facility would be a step for Make in India, being the first independent facility for turbine manufacturers and power producers." As per the IIT Roorke official communiqué, the laboratory would undertake studies in fields such as multi-phase hydro dynamics, water power project and hydraulic machinery. Present on the occasion, IIT Roorkee Director AK Chaturvedi said, "The laboratory will provide a platform for national and international academic and industrial collaboration with hydro power industry and research groups. The industry would have research-based solutions to industrial problems, prefabrication model testing, calibration and certification within the country in cost effective manner."

Technique for early diagnosis of breast cancer by IIT, Ropar

http://www.tribuneindia.com/news/chandigarh/technique-for-early-diagnosis-of-breast-cancer-by-iit-ropar/571652.html

The Indian Institute of Technology, Ropar, has introduced a novel pulse compression favourable 'Active Infrared Thermography' for the early detection of breast cancer.

With this technique, breast cancer can be detected at an early stage in women of all ages.

The proposed technique makes use of infrared emission emanating from the breast to detect the hidden tumors inside it at an early stage. Dr Ravibabu Mulaveesala, Associate Professor, Department of Electrical Engineering, IIT Ropar, said: "Following the success of research predictions of our group at InfraRed Imaging Laboratory (IRIL), we are now working towards the development of portable, low cost, an active infrared screening system, which will provide an early detection of breast cancer irrespective of patient's age, size, type of breast (either fatty or dense) and it's stage".

Recently, the research paper, 'Applicability of active infrared thermography for screening of human breast: a numerical study', has been published in the Journal of Biomedical Optics.

Graded autonomy of universities: An idea gone awry thanks to government interference

http://www.dnaindia.com/analysis/column-graded-autonomy-of-universities-an-idea-gone-awry-2602923

Universities across the world are born autonomous and India is no exception. They are empowered by law to take their academic, administrative and financial decisions through decision-making bodies like academic councils, finance committees and executive councils.

Sadly, however, many of these powers have, over time, been circumscribed, if not usurped totally, by a plethora of notifications, regulations and guidelines issued by governments and regulatory bodies such that universities are now autonomous only with the permissions of their masters. This is invariably done on the pretext of public accountability and promotion of excellence.

However, there is compelling evidence to prove that the quality of higher education is essentially inversely proportional to the intensity of regulations, at least in India.

Against this backdrop, any move by the government to guarantee greater autonomy to the institutions of higher education must be welcomed. While the IIM Act was needed to give them power to award degrees, the opportunity was also used to make them fully autonomous. They are now proclaimed to enjoy unrestricted freedom in the constitution of their boards as well as selection and appointment of their chairpersons and directors.

The second initiative in the series is the UGC Regulation for categorising universities based on their scores in NAAC accreditation or their ranks in the world rankings. Accordingly, universities reckoned amongst the top 500 in the world by QS or THE rankings as well as those that scoring 3.50 or above are to be placed in category I, whereas those scoring between 3.01 to 3.49 are to be bracketed in Category II. By implication, those scoring lower than 3.01 or remaining unaccredited are to be labelled as Category III universities.

Applying these criteria, 25 universities comprising 2 central universities, 12 state universities and 11 institutions deemed to be universities have been declared as Category I universities. Additionally, 27 universities consisting of 3 central universities, 9 state universities, 13 institutions deemed to be universities and two private universities have been notified as Category II universities. These category I and II universities are to remain within the ambit of the University Grants Commission (UGC), but shall have the freedom to start, without seeking UGC approval, new courses, off-campus centres, research parks and any other new academic programs.

Besides, the regulation in this regard also provides them freedom to hire foreign faculty, enrol foreign students, give incentive-based emoluments to the faculty, enter into academic collaborations and run open and distance learning programmes.

Taking them at face value, these two initiatives could have earned accolades for being pathbreaking and paving the way for a gradual shift towards a liberalised regime in higher education aimed at promoting excellence. The only objection to the move could have been on the ground that regulations are a barrier to excellence, then why should only a small number of universities be autonomous. The only other criticism could have been on the ground that unlike IIMs, where the issue of granting autonomy underwent inter-ministerial consultations and passed through the legislative rigour, the government chose to grant greater autonomy to universities in a graded manner through an administrative notification. But this does not necessarily lessen the importance of the decision.

It is, therefore, perplexing that a large section of the academic fraternity has reacted to the move with suspicion, calling it a euphemism for privatisation, commercialisation, withdrawal of state funding for higher education and erosion in public accountability, leading to crass commercialisation of higher education. Anguish of the academia can be best explained by context and timing of the notification. Most of their misgivings emanate not as much from the regulation on graded autonomy, as they do on account of a series of other announcements in recent times.

General Financial Rules (GFR) 2017 explicitly requires all autonomous organisations, with no exception to universities, to maximise generation of internal resources to eventually attain self-sufficiency and raise their user charges (read fees in case of universities) to recover the current cost of providing services with a reasonable return on capital investment. The fear gets further reinforced when higher educational institutions are not being given grants for the development of their physical facilities and infrastructure and are, instead, encouraged to borrow from Higher Education Funding Agency (HEFA). As if these were not frightful enough, it was made mandatory for the universities to raise a minimum of 30 per cent of the additional resources needed for the implementation of the 7th Pay awards.

Obviously, the apprehension of the academic community cannot be shunned as crying wolf when there is none and needs to be addressed urgently. The least that the government can do is to assure the nation that it is committed to enhanced investment in higher education and that funding for higher education won't be curtailed. But for this, a wonderful initiative of granting autonomy to higher educational institutions would be seen as an idea gone awry.

NPTEL, Internshala tie up to facilitate internships from over 1800 colleges

http://www.thehansindia.com/posts/index/Young-Hans/2018-04-10/NPTEL-Internshala-tie-up-to-facilitate-internships-from-over-1800-colleges/373091

NPTEL, Internshala tie up to facilitate internships from over 1800 colleges

National Programme on Technology Enhanced Learning (NPTEL) signed an MOU with Internshala to provide internships to students in colleges that have partnered with NPTEL as Local Chapters.

This move will help in improving students' technical competency, soft skills and thus employability quotient as students will have an opportunity to find an internship through Internshala, with access to over 4.5 Lac+ internships listed on their site. The platform will also organize online workshops for students on internship preparation. The colleges will be able to track their students' performance in internships secured via Internshala.

NPTEL's online certification courses have been quite popular in the last 4 years with 740 courses being completed, 3.6 million+ enrollments and 2.6 lakhs+ exam registrations. In July 2018, 250+ courses are proposed to be offered. A not to be missed opportunity for anyone, anywhere to study and get a certificate from the IITs!

Internshala was founded in 2010 by Sarvesh Agrawal and provides internship opportunities to over 2.5 million students registered with it. Students can find internships in a diverse range of fields including engineering, management, applied arts, science, law, design, hotel management, architecture, and so forth.

Coordinator of NPTEL and Professor, Department of Electrical Engineering, IIT Madras, Andrew Thangaraj said, "Since 2003, NPTEL has been on a mission to help students across India get access to quality educational content for free. Internships are extremely important for students as it gives them practical experience and equips them with industry-relevant skills. Through the collaboration with Internshala, we would be able to connect students with relevant opportunities."

"Internshala is on a mission to build a world full of opportunities closer to the youth through internships and trainings. We are excited to partner with NPTEL which is also the world's most accessed library of peer-reviewed educational content.

Through this collaboration, we hope to promote skill building and help the youth find better opportunities," Sarvesh Agrawal, founder and CEO, Internshala, said who graduated from IIT Madras in 2006.

In 2017-18, 650,000+ internships (across different streams) were listed on Internshala with an average stipend of Rs. 7,500 per month. 46% of the internships also offered an option for interns to convert

the internship into a full-time employment upon completion and thus helping students with their job search as well. Both students and colleges can register themselves on Internshala for free.

April 9

CSIR UGC NET 2018 Exam – Important Dates, Subjects & Test Schedule

https://chandigarhmetro.com/csir-ugc-net-2018-exam-last-date-subjects-test-schedule/

The online application process for the CSIR UGC NET 2018 exam ended on 26th March 2018. Council of Scientific research and Industrial Research conducts the CSIR-UGC Test for Junior Research Fellowship and Eligibility for Lectureship. The application process for the CSIR UGC NET 2018 exam was started on 5th March and closed on 26th March.

CSIR UGC NET 2018 – Written Request for Exam Centre Change

All candidates who have applied for the exam wants to change the examination centre can change the examination centre via written request. This is purely on merit basis. The last date for the receipt of a written request for the change of examination centre is 19th April. On 18th May 2018, the list of candidates who have registered for the CSIR UGC NET 2018 test will be published on the CSIR HRDG website. The admit cards to all the candidates will be issued in the first week of June.

CSIR UGC NET 2018 – Subjects of Test

The CSIR NET exam will be held in the subjects – 1. Chemical Sciences 2. EarthAtmospheric, Ocean and Planetary Sciences 3. Life Sciences 4. Mathematical Sciences 5. Physical Sciences. The exam date is tentatively set for 17th June 2018. The question paper for the CSIR NET exam 2018 will have questions from these subjects and will be of 200 marks. The test booklet of the CSIR NET exam will have three parts i.e A, B and C. Part A will have common questions, Part 2 will have subject related questions and Part C will have higher value questions that will test the candidate's scientific concepts.

For each wrong answer, there will be negative marking. If in any case if a question is found wrong then only marks will be given to those candidates who have attempted the questions. The test booklet for the exam will be printed in Hindi and English.

CSIR UGC NET 2018 – Final Result Declaration Date

The final result of the Single MCQ test will be declared in the month of September or October 2018. The fellowship for all successful candidates will begin from 1st January 2019. The validity period will be 2 years for joining the fellowship. CSIR conducts the CSIR NET exam for determining the eligibility of Indian candidates for the award of JRF and Lecturer in certain subjects that falls under the faculty of Science and Technology.

Pollution control device maker Chakr Innovation secures pre-Series A round

https://entrackr.com/2018/04/pollution-control-chakr-innovation-fund/

Chakr Innovation–a pollution control device making startup has raised undisclosed funds in a pre-Series-A round from IDFC-Parampara Fund and Globevestor Funds.

The Delhi-based startup, will use the capital infusion from the early-stage venture firms to expand production and for research & development of new products.

Floated by Arpit Dhupar, Kushagra Srivastava and Prateek Sachan in 2016, the startup has developed a retrofit device called Chakr Shield. This shield fits in the exhaust pipe of a diesel generator and captures 70-90 per cent of the particulate matter, ranging from PM 1 and PM 2.5 to PM 10.

Further, the captured material is passed through an air cooler exchanger pipe and stored in a solvent. The soot produced is converted to ink in Chakr's processing unit, which can be used for printer cartridges and paint.

The device is currently being used in IIT-Delhi and at some factories in Gurugram, Noida, and Ghaziabad. This year, Chakr is planning to test the system at 25 different locations in Delhi to bring down the capital's air pollution level, largely caused by diesel generator emissions.

Globally, Chakr also working with the Energy Policy Institute at the University of Chicago's India team to pilot and test their ideas.

The company has so far raised over $1.5 million, which includes a seed funding of Rs 1.6 crore from Delhi government along with the University of Chicago, which gave a grant of $100,000 in 2016.

Chakr was part of BOSCH India's DNA Accelerator Programme and got backing for product development and technology commercialisation. In 2016, it became a winner of India Innovation Growth Programme, held by the Department of Science & Technology, and in August 2017, it won a grant for new technology development from Indian Oil Corp.

The development was reported by ET.

April 8

IITs to add 779 seats for female candidates

https://udaipurtimes.com/iits-to-add-779-seats-for-female-candidates/

779 seats exclusively for women will be added by all Indian Institutes of Technology (IIT). This step has been taken to increase gender ratio in B.Tech programme. As per a decision taken in 2017, the seat numbers for females was to be increased but the final numbers have been announced now which will be in addition to normal intake of candidates.

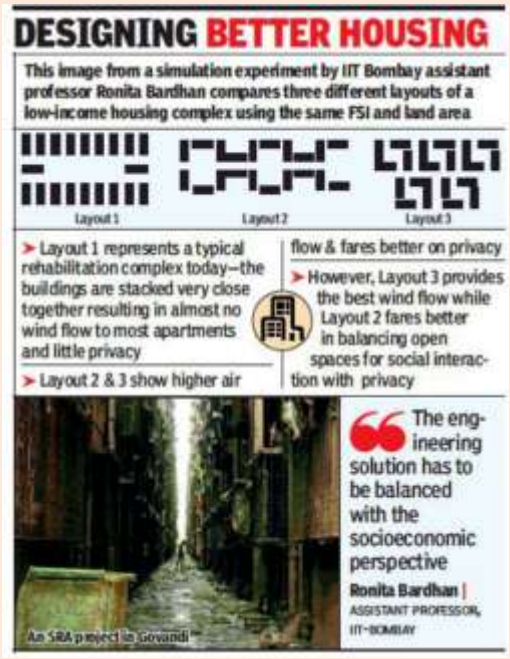
The number of seats may vary each academic year. As per sources, there are less than 10 percent of female candidates in IITs as of now. News has it that out of these 779 seats, the largest chunks will go to IIT- Kharagpur (113), followed by IIT-Dhanbad (95), IIT-Kanpur (79), IIT-BHU (76), IIT-Rourkee (68), IIT-Delhi (59), IIT-Mumbai (58) and IIT-Guwahati (57).

IIT team looks for ways to let light, air enter rehab colonies

https://timesofindia.indiatimes.com/city/mumbai/iit-team-looks-for-ways-to-let-light-air-enter-rehab-colonies/articleshow/63662717.cms

MUMBAI: Thousands of slumdwellers in Mumbai have been rehoused in the past few decades through various rehabilitation schemes. But how do these low-income homes fare in terms of livability? And if they fare poorly, what can be done to fix them? These are some of the questions that Ronita Bardhan and her team are trying to answer at the Centre for Urban Science and Engineering at the Indian Institute of Technology Bombay.

For the past few years, associate professor Bardhan and her colleagues have been conducting surveys, collecting data from sensors placed in homes, and modelling simulations in an effort to quantify how building design affects human health and well-being in low-income homes--and how this design can be optimised. The team contributed to an important new study by Doctors For Us linking high incidence of tuberculosis in low-income housing complexes in M/East Ward to poor ventilation and light in those buildings.



Slum rehabilitation projects have been important for meeting near-term demand for affordable housing stock, says Bardhan, who trained as an architect before doing her PhD in urban engineering at University of Tokyo. “But rehabilitation needs to be real,” she says. “Low-income families should be able to move into not just a new house but a healthier life.”

Bardhan’s lab has found issues of ventilation, inadequate light, and heat due to design shortcomings in several low-income buildings across the city. In newer blocks, lack of social and working spaces and privacy can be an additional problem, compared with say older chawl systems, says Bardhan.

Some findings are surprisingly complex. In one study comparing different kinds of low-income housing, the researchers found that while a low-rise stretch of slums had lower temperatures than multi-storied rehab buildings, the taller buildings cooled down faster— depending on their layout. In another study of BDD chawls published last year, Bardhan’s team found that a different layout of the same type of building in the same neighbourhood resulted in much better airflow.

The same study found that removing an obstruction on the windward side of one building could lead to a 50% reduction in stale air inside homes—a relatively simple fix. “We are looking for solutions within the existing policies of FSI and land space,” said Bardhan. “These include policy interventions on site layouts and orientation, as well as design retrofits to improve existing homes.”

Retrofit recommendations include installing high ventilators to improve air flow in lowincome homes—a typical feature of traditional Indian houses. Such solutions seem to reiterate architectural principles or conventional wisdom: Many homebuyers know to look for crossventilation and light, after all.

Yet those principles have been neglected in the rush to build affordable housing. And that neglect

has been enabled by the fact that the benefits of good design have not been quantified, says Bardhwan. This lack of data—and the disconnect she found between architects, engineers, and social scientists—was partly what motivated her to pursue this research, she says. “If you can tell people you can save x rupees in energy consumption by designing for more sunlight, that’s more effective.”

One of her studies shows, for instance, that a middle-income building with a 17% window to wall ratio could save up to 26% on lighting bills if it increased that ratio by just 3% and reoriented to the south-east. Bardhan uses this saving to make a case for including daylight performance as a parameter in the city’s building byelaws. Even in some middle-income housing complexes, only the top floors have adequate daylight. (She notes that Hong Kong now has byelaws making one building pay if it blocks another’s light.) Evidence and data are especially important in social housing projects where builders seek to keep costs as low as possible. “But cheap construction is not really cheap,” points out Bardhan, “it doesn’t account for future costs of poor health or energy consumption.” And those costs will become only go up in a changing climate.

JEE Advanced 2018 format changed, check details here

http://www.financialexpress.com/education-2/jee-advanced-2018-format-changed-check-details-here/1125486/

JEE Advanced 2018: The Indian Institute of Technology (IIT), Kanpur is all set to conduct the Joint Entrance Examination (JEE) Advanced test on May 20, 2018 this year.

JEE Advanced 2018: The paper will be conducted only in Computer-based Test (CBT) mode.

JEE Advanced 2018: The Indian Institute of Technology (IIT), Kanpur is all set to conduct the Joint Entrance Examination (JEE) Advanced test on May 20, 2018 this year. While until last year, the paper was conducted, both online and offline, the format has been changed this year. The paper will be

conducted only in Computer-based Test (CBT) mode. While the JEE Mains paper is being conducted today across various centres, the candidates who successfully qualify the paper will be able to appear for the JEE Advanced exam.

Below are the details candidates need to keep in mind before appearing for the JEE Advanced paper-

JEE Advanced 2018 exam schedule:
The examination consists of two papers (Paper 1 and Paper 2) of three-hour duration each and both the papers are compulsory. The exam will be held on Sunday, May 20, 2018. While Paper I will take place between 9 AM to 12 PM, Paper II will take place from 2 PM to 5 PM.

JEE Advanced 2018 question paper format:

- Each question paper will consist of three separate sections, viz., Physics, Chemistry and Mathematics.
- The question papers will consist of objective type (multiple choice and/or numerical answer type) questions designed to test comprehension, reasoning and analytical ability of candidates.
- Negative marks may be awarded for incorrect answers of some of the questions. Details of the marking scheme will be provided in the "Instructions to Candidates" section at the time of examination.
- Candidates must carefully read and adhere to the detailed instructions given in the question papers available at the time of examination.
- The question papers will be in English and Hindi languages. The candidates will have the option to choose (and also switch between) the preferred language anytime during the examination

General Instructions about JEE Advanced CBT mode-
1. Total duration of each paper of JEE (Advanced) 2018 examination is of 3 hours (180 minutes) duration.
2. The on-screen computer clock counter of every candidate will be set at the server. The countdown timer in the top right side of a computer screen will display the time remaining (in minutes) available for the candidate to complete the examination. When the timer reaches zero, the examination will end by itself. Candidate will not be required to end or submit the examination.

More about JEE Advanced 2018:
The Joint Entrance Examination (Advanced) 2018 test is conducted every year by one of the participating IITs under the guidance of the Joint Admission Board (JAB) 2018. Through this examination, the performance of the candidates is assessed as a basis for their admission to the Bachelor's, Integrated Master's and Dual Degree programs (entry at the 10+2 level) in all the IITs.

IIT-Kharagpur pilot project to conserve heritage along the Hoogly

http://www.thehindu.com/news/cities/kolkata/iit-kharagpur-pilot-project-to-conserve-heritage-along-the-hoogly/article23471315.ece

The project would focus on five former trading posts and garrison settlements near Kolkata — Bandel (Portugese), Chinsurah (Dutch), Chandernagore (French), Serampore (Danish) and Barrackpore.

IIT-Kharagpur, the oldest and largest one in the country, has initiated a pilot project to protect the rich cultural heritage of the cities and towns along the Hoogly.

The project would focus on five former trading posts and garrison settlements near Kolkata along the Hooghly river — Bandel, Chinsurah, Chandernagore, Serampore and Barrackpore, an IIT-Kharagpur statement said here today.

The pockets bear traces of Portugese (Bandel), Dutch (Chinsurah), British (Barrackpore), French (Chandernagore), Danish (Serampore) presence, as well as India's own rich culture.

The pilot project has been initiated by IIT-Kharagpur's department of humanities and social sciences, in association with the University of Liverpool, U.K., the statement said.

Principal investigator on behalf of IIT-Kharagpur, Jenia Mukherjee said, "These places, being peripheral cities surrounding Kolkata, are not getting enough exposure. And yet, in these cities too, heritage buildings are making way for apartments, multiplexes and so on."

Among the top priorities of the project is the conservation of centuries-old buildings, which are mainly private houses, she said.

Lack of funds makes maintenance difficult for even those willing to preserve their properties, Prof. Mukherjee said adding, "We will be seeing if it is possible to build up a public-private-partnership for the upkeep of these structures."

The project is being jointly funded by the Arts and Humanities Research Council, U.K., and the Indian Council for Historical Research and the idea is to involve the people of the region as "owner-custodians" of this heritage, she said.

The project team recently held an exhibition at Chandernagore with the Institut de Chandernagore which got an overwhelming public response.

The Institut de Chandernagore is one of the oldest museums of the region and boasts a collection of French antiques such as cannons used in Anglo-French war, wooden furniture of the 18th century which are difficult to find anywhere else in the world.

She will be working with Ian Magedera, the principal investigator from the University of Liverpool, Antara Mukherjee, an assistant professor in West Bengal Education Services as lead honorary researcher and a team of architects and city planners.

A multi-stakeholder round-table conference was conducted at the British Council, Kolkata on April 6 involving the project team, the state government, planning officers, secretary of the West Bengal Heritage Commission among others.

At that meeting, IIT-Kharagpur director Partha Pratim Chakrabarti underscored that modernity and heritage should have a "harmonious and caring relationship".

The project aims to draw up a Heritage management strategy, an hour-long documentary film among its other efforts to preserve the collective history.

An annual Hoogly Heritage Day is also being planned, IIT sources said.

April 7

There aren't still enough women in IITs, says high-level survey

http://zeenews.india.com/india/there-arent-still-enough-women-in-iits-says-high-level-survey-2097345.html

Women are under-represented in STEM fields in top engineering institutions. But surprisingly, they are well-represented in non-elite institutes.

NEW DELHI: There are still not enough women in Indian Institutes of Technology (IITs) and National Institutes of Technology (NITs), revealed a survey conducted jointly by the All India Council for Technical Education (AICTE) and the Stanford University.

Women are under-represented in STEM (Science, Technology, Engineering and Mathematics) fields in top engineering institutions. But surprisingly, they are well-represented in non-elite institutes.

In a large-scale program to assess and improve the skills of engineering students in India, AICTE along with Stanford University is currently undertaking a three-phased survey in engineering institutes of the country. Based on the survey results, the Centre will introduce changes in technical education in India.

The first two phases are already over. The final phase will be implemented in April 2018 and continue till September 2019.

Here's a quick look at the detailed survey results:

Phase 1 – Pilot Survey (February 2017 – June 2017):

Nearly 5,000 engineering students from 1st, 2nd and 4th years, 600 faculty and 30 department heads participated in the first phase. Based on the results of the expert evaluations and the small-scale pilot study, the instruments were prepared for a large-scale pilot.

Phase 2 - Baseline Survey – June 2017 – April 2018:

In this primary baseline survey, the team implemented and monitored activities in 42 AICTE Approved institutes, 8 Elite Institute (1 IIT and 7 new NITs). Approximately 18,000 engineering students from 1st and 3rd years, along with 3500 faculty and 100 department heads participated. The survey was also conducted in 118 Technical Education Quality Improvement Programme (TEQIP) funded institutes for approximately 27,453 students (1st and 3rd year), 4,300 faculty and 200 department heads. The institutes were randomly selected all over India.

The survey results highlighted the following:
1. Understanding skill levels and gains for different student sub-groups:

It is important to understand how different student sub-groups are performing within institutions

Different student sub-groups consisting of Female, SC/ST/OBC, Economically Disadvantaged, and Rural are considered for comparison in Elite and Non-elite institutions.

This can help the Government to consider targeted policies that reduce disparities and contribute to a more equitable, prosperous society.

2. Female-Male Student Differences

Females are under-represented in STEM (Science, Technology, Engineering and Mathematics) fields in Elite institution but are well-represented in non-elite institutes. Women students make considerable gains in college in elite and non-elite.

In Non-elite Institutions (Nationally) female students start out (in year 1) behind male students in quantitative literacy and very small students in amount in physics

Female and male student differences are essentially the same in year 1 as year 3 (female students are still behind in physics, and a little behind in higher order thinking skills)

3. Socially Disadvantaged (SC/ST/OBC) Students

India's system of affirmative action (reservations) is one of the most comprehensive in the world.

Little is known about the skill levels and gains of social disadvantaged students compared to advantaged students.

4. Socially Disadvantaged versus Advantaged Student Differences in Skill Levels and Gains:
In Elite Institutions (Nationally and TEQIP):

Disadvantaged students unsurprisingly start out (in year 1) substantially behind in all subjects

Disadvantaged students make significantly more gains than advantaged students in math, physics, and quantitative literacy from year 1 to year 3. In non-elite institutes, they start to catch up in math, physics and quantitative literacy by year 3.

5. Rural Students

Despite rapid urbanization, a majority of India's population (up to 67%) still lives in rural areas

Many students from rural areas attend colleges in India's towns and cities

Due to social, cultural and economic reasons, rural students might learn differently in college than their urban counterparts

Understanding learning outcomes of rural students could help address the needs of this large and significant section of India's youth

6. Rural versus Urban Student Differences: Takeaways

In Year 1, rural students start out behind (in all skills) urban students in both the National and TEQIP samples

While rural students remain behind urban students in Year 3, they sometimes make more gains than urban students (depending on the exam and institution type) and never fail to make at least equal gains.

7. Economically Disadvantaged (Low Ses-Socio Economic Status) Students:
In elite institutions

Low SES students unsurprisingly start out substantially behind in all subjects in 1st year

Low SES students make significantly more gains than High SES students in physics from year 1 to year 3 in both nationally and in TEQIP colleges. Students in TEQIP colleges also make significant gains in maths and quantitative literacy.

Unsurprisingly, low SES students remain behind in all skills by year 3