

## **NEWS CLIPS**

May 11-17, 2019

Highlights of the Week@IITD

# Spiritual Social Tech Startup Rgyan App Selected at IIT Delhi Start-up Expo

May 17 2019 <u>https://www.indianweb2.com/2019/05/17/spiritual-social-tech-startup-rgyan-app-selected-at-iit-delhi-start-up-expo/</u>



The Rgyan app was recently selected at the IIT Delhi Startup Expo organized by the Entrepreneurship Development Cell of IIT Delhi during its Annual Business and Entrepreneurship Conclave. Its Beta version was showcased and well received by various startups and esteemed VCs including Sangam Ventures, India Accelerator, Lightspeed Ventures, Venture Catalyst, and Kieretsu Forum. The app was appreciated for being an innovative and unique social networking platform.

Rgyan which is a spiritual socio tech startup started in the year end of 2016 with the classification of curated content on Divinity, Daily Horoscope and aggregated News on spiritual and social matters. Slowly it has evolved into a spiritual Social networking platform with the vision of Empowerment of Participation through which users can express and share their thoughts/content (Through Pics, Videos, Text, GIF or in a discussion manner) related to spiritual matters, health tips, motivational Quotes and many more meaningful categories.

Unlike existing social media platforms which produce minimal thoughtful discussing, Rgyan creates a community of intellectuals and motivated individuals seeking truths about life. It is a spiritual social technology startup founded on the belief of empowerment of participation by creating a spiritual social network. It can be compared to a spiritual Instagram with a touch of Quora. Rgyan promotes thoughtful discussions on non-trivial topics necessary to find important truths about life. It expects

to do so by facilitating a sharing of thoughts on subjective matters. Amidst social media sites that promote banality and silliness, Rgyan stands out as a platform where serious discussions are heard. It is available on the Android Play Store.

To use Rgyan, users can log in by creating an account using a registered phone number or explore its services as an anonymous user. The app allows users to express and share their thoughts through pictures, videos, text, GIFs, or as real-time discussions. Content shared on Rgyan is centred around spirituality, health and wellness, motivational quotes and various other pertinent topics. The Rgyan app offers the flexibility of a User Generated Content Model (UGC) with that of curated content available on Divinity, Daily Horoscope, and aggregated news on spiritual and social matters. Curated content is also available on the Rgyan web portal.

Speaking about Rgyan's success at the IIT Delhi Startup Expo Mr. Debjit Patra, Founder and Chairman, Rgyan said "We're thrilled at how well the Rgyan app was received at the IIT Delhi Startup Expo. The fact that key leaders from leading VCs had nothing but praise about Rgyan's unique vision to stand out among social networking apps that devote hours on time on banality means we've achieved something groundbreaking. Of course, we intended to create a platform that stood apart from others using maturity of content and meaningful discussion. So, while we're thrilled with the response we received, we're not overwhelmed because we anticipated something like this".

# GATE 2020 to be conducted by IIT Delhi! Registration for GATE to begin in September

May 15, 2019 <u>https://www.indiatoday.in/education-today/notification/story/gate-2020-to-be-</u> conducted-by-iit-delhi-registration-for-gate-to-begin-in-september-1524473-2019-05-14

The Graduate Aptitude Test in Engineering (GATE) 2020 will be conducted by the Indian Institute of Technology (IIT), Delhi.



GATE 2020 to be conducted by IIT Delhi! Registration for GATE to begin in September

GATE 2020: The Graduate Aptitude Test in Engineering (GATE) 2020 will be conducted by the Indian Institute of Technology (IIT), Delhi. The online registration for GATE 2020 will begin in September, 2019 on the official website, the link for which is gate.iitd.ac.in

This year, the Indian Institute of Technology (IIT) Madras conducted the Graduate Aptitude Test in Engineering (GATE) 2019 on February 2, 3 and February 9, 10. The exam is conducted on the basis of

24 subjects including Aerospace Engineering, Agricultural Engineering, Architecture and Planning, Biotechnology, Civil Engineering, Chemical Engineering, Instrumentation Engineering, Mathematics and Mechanical Engineering among other subjects.

#### Marking scheme of GATE:

For a wrong answer chosen in a MCQ, there will be negative marking. For 1-mark MCQ, 1/3 mark will be deducted for a wrong answer. Likewise, for 2-mark MCQ, 2/3 mark will be deducted for a wrong answer. There is no negative marking for a wrong answer in NAT questions.

#### Steps to register for GATE 2020:

Visit the official website gate.iitd.ac.in

On the homepage, click on 'GATE 2020 tab'

You will be directed to a new webpage

Enter your valid email ID and mobile number for registration

Log in with your enrollment ID and password

Enter all the required details and upload photograph, signature, and complete the payment process

Click to submit

#### GATE 2020: Eligibility criteria

Interested candidates need to possess a graduate in BE, BTech, BPharmacy, BArch, BSc (Research), BS, MA, MSc, MCA, Int MSc or Int BSMS in 2019 or should have completed their Int ME, MTech (post BSc) or a dual degree after 10+2.

#### **Application fee:**

Unreserved: Rs 1,500

Women: Rs 750

SC/ST/PwD: Rs 750

International: USD 50

## GATE 2019 results: Data

The Indian Institute of Technology (IIT), Madras announced the results of the Graduate Aptitude Test in Engineering (GATE) 2019 on March 15, 2019 on the official website, gate.iitm.ac.in.

In the exam, Shashank Mangal, a 21-year-old boy from Morena district of Madhya Pradesh secured the first rank in GATE 2019. He has scored a total of 989 marks out of 1,000.

#### Why GATE scores are needed?

GATE score is a compulsory qualifying criteria for those seeking admission and/ or financial assistance to Master's programs and direct Doctoral programs in Engineering or Technology or Architecture and Doctoral programs in relevant branches of Science, in the institutions supported by the MHRD and other Government agencies.

Since the exam is conducted in multiple sessions which brings a variation in the difficulty level faced by the candidates. In order to counter this difference, the scores are normalized.

Also, GATE scores are used by many Public Sector Undertakings in their recruitment process.

#### About GATE:

The Graduate Aptitude Test in Engineering (GATE) is an all India examination that primarily tests the comprehensive understanding of various undergraduate subjects in engineering and technology.

The exam is conducted for admissions into post-graduate programmes in Indian institutes of higher education with financial assistance provided by the Ministry of Human Resource Development (MHRD) and other government agencies.

## Round-table conference hosted at IIT-Delhi on air quality

May 14, 2019 <u>https://www.thehindu.com/news/cities/Delhi/round-table-conference-hosted-at-iit-</u> <u>delhi-on-air-quality/article27121384.ece</u>

#### Discussions include role of democracy, law to resolve issues

The Centre of Excellence for Research on Clean Air (CERCA), IIT-Delhi, hosted a round-table conference on air quality at the institute on the need of data gathering, raising awareness and role of democracy and law to resolve the issues related to air quality.

The conference came up with suggestions on setting goals and pathways for achieving satisfactory ambient air quality in Delhi/NCR and other cities in India.

IIT Director V. Ramgopal Rao said many researchers at IIT-Delhi were working on the subject of air quality and CERCA provides them a platform to connect with the government for the implementation of research output for developing and refining government's air pollution abatement plans and policy decisions.

He said, "CERCA is providing opportunities to researchers and people are coming together to address the issue of air pollution. Positive changes can be seen at this stage. CERCA is slowly but steadily making progress in addressing the air quality issue in Delhi."

Sumit Sharma from TERI made a presentation on air quality outlook which indicated that with additional measures taken by the government, it might be possible to achieve the annual average of PM2.5 of 36 g/m3 from current level of 110 g/m3.

CERCA's missions include ones to identify initiatives and policies in India and internationally which have been effective for sustained ambient air quality improvement. It hopes to provide scientific information and objective feedback on effectiveness of various clean air programmes to government's policymakers.

## IIT-Delhi targets Rs 550-crore external R&D funding this year

**May 13, 2019** <u>https://economictimes.indiatimes.com/industry/services/education/iit-delhi-targets-</u> rs-550-crore-external-rd-funding-this-year/articleshow/69314267.cms

Currently, IIT-D has about 500 ongoing research projects for durations of about two years each.

The Indian Institute of Technology, Delhi (IIT-D) is targeting external R&D funding of Rs 550 crore this year, up from Rs 400 crore last year. In addition, the institute will also get a grant of Rs 1,000 crore from the government over the next five years after it bagged the coveted institute of eminence (IoE) tag. As part of the IoE, the institute needs to increase its focus on research to bring it a step closer to competing with the best global institutes.

"The R&D activity of IIT-D has shown a huge growth in the last two years because of the focus on research in thematic areas of interest. As a result, all the research projects that we undertake are now either driven by industry or by what the society needs," B R Mehta, R&D Dean, IIT Delhi, told ET. "For the coming year, the institute is working towards attracting R&D funding of Rs 550 crore," he said.

IIT Delhi started focusing on R&D projects relevant to industry and society in 2017, when it was attracting only about Rs 100 crore per year. "As a result of this new focus, the institute has been able to attract external research funding with a four-fold increase, touching Rs 400 crore per year for the last two years — 2017-18 and 2018-19," Mehta said.

While industry funds about 15%, national government funding comes in at 75% while the rest is from international organisations and institutes. "Apart from funding from external sources, IIT-D also uses its own internal funding (sources)," Mehta said.

## For A Greater Good

AFTER ACQUIRING THE TAG OF INSTITUTE OF EMINENCE (IOE), IIT Delhi is sprucing up its research and development activities



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Currently, IIT-D has about 500 ongoing research projects for durations of about two years each. Last year, it added about 220 new projects that fetched R&D funding of Rs 400 crore.

Most of the research projects are in domains such as artificial intelligence, energy, water, environment, electric vehicles, nanotechnology-based sensors and actuators (the components in a machine responsible for moving and controlling a mechanism or system). The institute is also working on high-performance computing systems, high-end research facilities in nano-materials, healthcare and manufacturing, to name a few.

In the last two years the institute has set up five centres of excellence (CoEs). These include ones for research in clean air, energy and environment, 5G technology, sustainable infrastructure, and oilbased technologies, all supported by leading industrial houses.

It has also signed memoranda of understanding (MoUs) with industry and government bodies to set up three more CoEs this year. "These are in the final stages," said Mehta, without divulging details.

The funds are also used to improve the faculty to student ratio by increasing the faculty strength to 1,000 from the current 600.

The institute is building a technology park on campus that will host industry labs, provide space for entrepreneur startups and facilitate innovative ideas or technology.

## **IIT Delhi to teach 4-year Engineering Science course**

May 13, 2019 <u>https://timesofindia.indiatimes.com/home/education/news/iit-delhi-to-teach-4-year-engineering-science-course/articleshow/69306667.cms</u>



The course will help students learn about engineering basics in the first year and choose a desired specialisation in the second

Several IITs have been allowing 10% of their students to change engineering branches after the first year, provided they have good academic records; have completed the full complement of courses with no exam backlog.

Every year students opting for branch change, surpass the 10% cap. Most students rush to change their stream and desire to go for the most coveted Computer Science that continues to be overcrowded. Engineering Science has been introduced to address this problem. Students will get to understand the relevance of all the streams before jumping for a stream change after the first year.

"The four-year Engineering Science course will enrol students who are not ready to take the pressure of choosing specialisation right after class XII. This course will equip them will all the facets of Engineering science," says V Ramgopal Rao, director, IIT Delhi, who wants the students to make an informed decision while opting for engineering branches after class XII.

A committee will soon be formed by IIT Delhi, which will consist of its senate members. Looking at the success of the course, this may eventually be launched in other IITs.

Rao points at an urgent need to have a national-level counselling facility to help students analyse their aptitude well before getting into the domain of engineering studies.

Streams are allotted based on the JEE Advanced rankings. So, students with high scores get into Computer Science, irrespective of their interest in studying Mechanical or any other desired stream. "Students choose engineering branches based on the legacy of their seniors or parents' advice. They must explore their own potential as parents' knowledge about disciplines and job prospects is outdated," adds Rao.

The Engineering Science course will allow students to learn about the engineering basics in the first year and opt for a desired field of specialisation in the second. "People do better when they pursue the subjects they like and IITs are working towards helping students make that choice when they are deeply engaged in the engineering curriculum," adds Balakrishnan, Deputy director (Strategy and Planning), IIT Delhi.

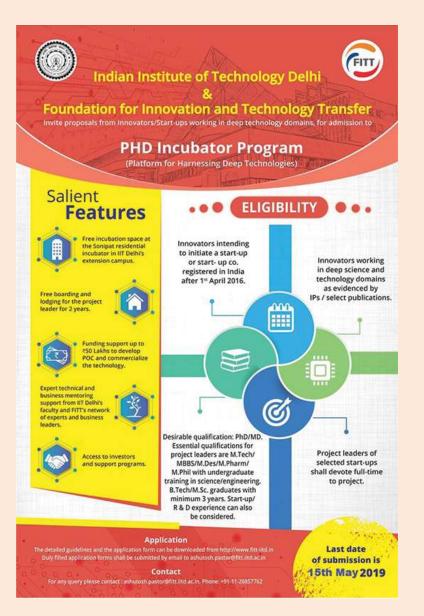
## IIT Delhi's PHD Incubator Program facilitates students to become entrepreneurs

May 11, 2019 <u>https://www.campusvarta.com/campus-updates/iit-delhis-phd-incubator-program-facilitates-students-to-become-entrepreneurs/</u>

IIT Delhi and Foundation for Innovation & Technology Transfer (FITT) invite proposals from Innovators/Start-ups working in deep technology domains for admission to PHD Incubator Program (Platform for Harnessing Deep Technologies).

### About the Program:

This programme provides comprehensive support for converting your idea into a startup, including free incubation and accommodation to the budding entrepreneur as well as funds for the prototype development/proof of concept.



The primary aim is to provide a strong foundation to high-risk innovative projects in the deep tech domains to achieve and validate POC. The scheme execution would be designed in a manner to ensure only qualified and genuinely interested professionals can apply for the award that offers initial support to the tech entrepreneurs.

### **Eligibility:**

## In terms of proposals

Concepts/ideas relating to deep technologies in all areas of science and engineering and having strong translational/commercial prospects.

A product or process innovation with substantial market potential/disruption.

Having clear objectives in terms of validating their proof of concept.

Projects focused on generating the necessary scientific data needed for derisking i.e., reducing uncertainties in the technology, which in turn will be helpful to demonstrate it to investors/ funding programs for startups.

#### **Criteria for the Project Leader**

The Entrepreneur Project Leader/ Principal investigator / must be an Indian citizen and technically qualified to undertake the project.

The Project Leader must have completed postgraduate training in sciences or engineering.

The desirable qualification will be Ph.D./MD. The essential qualification is MTech/MBBS/ M Phil/M Des/M Pharm and equivalents with undergraduate training in Science/ Engineering.

Entrepreneurs with an MSc/B. Tech degree with at least 2 years of full-time entrepreneurship or R & D experience shall also be eligible.

#### **Criteria for eligible startups**

The company should be registered under the Indian Companies Act, 2013. The date of incorporation must be within the past 3 years from the date of application to the program to qualify as a startup for this program.

The cash inflow in terms of funding/grants/revenue from sales or operations should not be exceeding Rs. 1 cr. in any fiscal year since its incorporation. Majority stake (>51%) and control of the startup company should be held by resident Indian citizens.

The major shareholders/ promoters or directors (having >20% stake) should not be directors/promoters of ineligible companies. This may be waved off only in case of bonafide serial investors.

#### **Support Provided:**

Financial support up to Rs. 50 Lakhs will be provided as a grant in aid. In exceptional cases, additional funding can be considered.

Free boarding and lodging for the project leader at the SRI. Other team members can avail accommodation at the facility on a paid basis.

Incubation space and support will be provided as per institute norms regarding the engagement and equity terms according to institute guidelines.

The Entrepreneurs will get the technical advice and mentorship from the Institute's faculties who can work as scientific advisors with the startups.

#### How to apply?

Click here for the application form.

The duly filled soft copies can be submitted by email to FITT at ashutosh.pastor[at]fitt.iitd.ac.in

#### **Application Deadline:**

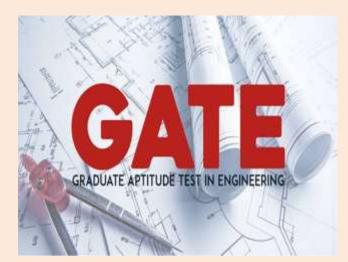
May 15, 2019.

#### Contact:

The office of Managing Director, FITT Email: mdfitt[at]gmail.com, ashutosh.pastor[at]fitt.iitd.ac.in Phone: +91-11-26857762

## IIT Delhi Likely to conduct GATE 2020

May 10, 2019 <u>https://www.jagranjosh.com/news/gate-2020-to-be-conducted-by-iit-delhi-after-8-years-149025</u>



The Graduate Aptitude Test in Engineering is a national level engineering entrance exam for admission to the various PG level programs. The GATE exam is conducted on an annual basis by the Indian Institutes of Technology (IITs) and Indian Institute of Science (IISc). They conduct the GATE entrance exam on a rotational basis and each institute gets the chance to conduct the exam after a gap of eight years. Hence, it is likely that GATE 2020 will be conducted by the Indian Institute of Technology, Delhi as the last time it conducted the GATE exam was in the year 2012.

Although no notification concerning the matter has been released on the official website some news reports have stated that the conducting body of the GATE 2020 was decided at the same time when the administration sat down for finalizing JAM 2020 conducting body. IIT Kanpur has been announced as the conducting body for the JAM 2020 examination. It also expected that there might be some change in the exam pattern of the examination, however, any confirmation on the matter shall only be received around the month of August when the board has made a decision on the aforementioned matter. It is also possible that fresh conducting body members might be appointed for GATE examination as was the case for JAM 2020.

Registrations for the GATE 2020 are expected to commence in the month of September 2019. Also, the GATA 2020 examination is likely to be conducted in February 2020 with the scorecards to be issued around May 2020. The GATE 2019 examination was conducted by IIT Madras. The exam was held for 24 subject papers, with statistics as the new addition.

#### **GATE Exam Pattern**

The GATE entrance examination is conducted in the online mode i.e. computer-based mode. The exam duration is of 3 hours wherein candidates need to attempt 65 questions with a total of 100 marks. The questions asked in the exam are both from the subjected opted by the candidate and the general aptitude section. Also, the paper contains both MCQ (Multiple Choice Questions) and NAT (Numerical answer type questions) with a separate marking for both question types.

**Role of IITD in Society** 

## IIT-Delhi suggests steps for safer Yamuna Expressway

May 17, 2019 <u>http://www.newindianexpress.com/cities/delhi/2019/may/17/iit-delhi-suggests-</u> steps-for-safer-yamuna-expressway-1978072.html

The report recommended increasing the number of speed guns and cameras installed along the expressway.



A road safety audit by IIT-Delhi has recommended several measures for better speed compliance along the Yamuna Expressway, apart from identifying deficiencies in signage marking and roadside barriers on the 165-km corridor connecting Greater Noida and Agra.

The Yamuna Expressway Industrial Development Authority (YEIDA) received the final draft of the audit this week.

Incidentally, on Thursday, a mini-van crashed into the central verge of the e-way and flipped over. Three students are in serious condition, while two are on life support.

The study identified and studied crash locations based on the past three years' traffic crash data, and provided suggestions to reduce accident risks at those spots.

The audit was launched in August last year, almost a year after a Supreme Court-appointed panel on road safety recommended one in the wake of an increasing number of mishaps on the expressway.

"A meeting is now scheduled on Friday, May 17, between YEIDA, the concessionaire, Jaypee Associates, and the experts for charting out the next course. The recommended action plan for road

safety along the expressway after the meeting will be approved by our upcoming Board meeting on May 30 before implementation," said Arun Vir Singh, Chief Executive Officer, YEIDA. "The final draft report, which we have received this week from IIT-Delhi, has listed eleven main points, including putting into place a dedicated police enforcement team, and other measures for controlling the speed of vehicles."

The report recommended increasing the number of speed guns and cameras installed along the expressway. Currently, there are 24 cameras, with 12 located along each carriageway, and four-speed guns.

Other measures to check accidents include fining vehicle owners who change lanes, drink and drive, drive without tail lights, speed along entry/exit ramps, drive on the wrong side, etc. The report suggested that the height of guard rails be raised and the median be replaced by a flushed median as per Indian Road Congress standards and norms.

This is the second time that a road safety audit was conducted. On December 24, 2014, YEIDA had hired the Central Road Research Institute (CRRI) to conduct a safety audit of the expressway after frequent accidents resulting in casualties were reported. Even though the report said that the Yamuna Expressway was likely to be a death trap for motorists who speed, the CRRI recommendations hardly made any difference to enforcement.

However, according to the concessionaire, with the introduction of safety measures, in 2017, there were fewer accidents as compared to 2016. In 2016, 1,219 accidents claimed 133 lives. In 2018, there were 659 crashes and 111 fatalities. This year, up to February, the expressway has recorded 79 accidents and 38 causalities.

## Delhi high court questions how revamp plan got nod amid red flags

May 16, 2019 <u>https://timesofindia.indiatimes.com/city/delhi/delhi-high-court-questions-how-revamp-plan-got-nod-amid-red-flags/articleshow/69351044.cms</u>



Delhi high court on Wednesday asked UTTIPEC to explain how it granted permissions for the East Kidwai Nagar redevelopment project amidst concerns of traffic congestion and parking in the area.

The court also requested an IIT Delhi professor, Geetam Tiwari ,whose report prepared on the court orders had red flagged these issues, to remain present on Monday when it has sought clarification

from the civic agencies such as UTTIPEC, NBCC and New Delhi Municipal Council the circumstances under which mandatory approvals were given.

Last week, HC had made it clear that it needs to be convinced that the agencies studied the impact of the project on the overall traffic scenario and didn't issue hasty approvals simply because it is a government-sponsored housing project.

During the hearing, the court also sought to know from NDMC if the plan by which it granted sanction to NBCC was within the norms or not.

The court is expected to examine the issue in detail the next week in the presence of Tiwari, who found that NBCC may have underestimated the impact on traffic and congestion due to the vehicles that would be added to the corridor from Aurobindo Marg to the upcoming colony near AIIMS.

While NBCC has stuck to its stand that all the necessary approvals were in place and urged the court to lift its stay on the project, Justice Vibhu Bakhru had earlier asked Unified Traffic and Transportation Structure to review the project and examine if dwelling units could be reduced.

Taking note of the court-commissioned study, the court has been trying to reconcile the contrary findings between NBCC/UTTIPEC and the IIT report.

#### Alumni @IITD

## ITC chairman YC Deveshwar passes away

May 13, 2019 https://www.domain-b.com/people/in\_the\_news/20190513\_yogesh\_deveshwar.html

Yogesh Chander Deveshwar, India's most celebrated and longest-serving corporate head as the executive chairman and CEO at ITC for two decades, passed away early on Saturday. He was 72.

The immediate cause of his death is not known, but he was diagnosed with cancel a few years ago.

Deveshwar, who became executive chairman of ITC in 1996, successfully transformed the cigarette maker into a diversified group with a portfolio ranging from biscuits to hotels, effectively warding off a takeover threat from parent company BAT.

The cause of his death is not known. He was diagnosed with cancer a few years ago.

Born on 4 February 1947 in Lahore, Deveshwar did his studies at IIT, Delhi followed by a management course at Harvard University.

Deveshwar joined ITC in 1968 and became the executive chairman of the company in 1996.

Deveshwar was the architect of ITC's bold transformation from a tobacco company to a diversified business conglomerate with a robust portfolio of front-ranking businesses in consumer goods, hotels, paperboards and paper, packaging and agri-business. He also ensured that ITC remained an Indian company by successfully warding off takeover moves by parent company British American Tobacco (BAT).

Under him, ITC's revenues also grew ten-fold from Rs5,200 cr to over Rs51,500 crore and generated shareholder returns of 23.3 per cent compounded annually.

In 2011, Deveshwar received the Padma Bhushan, India's third-highest civilian award.

Between 1991 and 1994, Deveshwar led state-owned carrier Air India as the chairman and managing director.

He was also a director on the central board of the Reserve Bank of India.

Deveshwar stepped down as chief executive of ITC Ltd, India's largest cigarette maker, in 2017, handing over the role to Sanjiv Puri, who is the current CEO and MD of the company. Deveshwar was serving as non-executive chairman of ITC Group since then.

In June 2018, ITC decided to extend tenure of non-executive chairman YC Deveshwar by another two years from 2020 to 2022 so as to help mentor senior management of the increasingly complex organisation.

"We deeply mourn the passing away of Y C Deveshwar, chairman ITC. In this hour of profound grief and sorrow, we recall with respect and pride the legendary stewardship he provided to ITC over two decades as its chairman. Inspired by a patriotic fervour, manifest in his clarion call of 'Lets Put India First', he led ITC's strategic thrust to create an exemplary Indian enterprise dedicated to serving national priorities.

"Deveshwar passionately championed the cause for sustainable and inclusive growth and the transformative role businesses could play in creating larger societal value. This vision drove ITC to pursue business models that today supports over 6 million livelihoods, many amongst the weakest in society.

"His Vision to make societal value creation a bedrock of corporate strategy also led ITC to become a global exemplar in sustainability and the only company in the world to be carbon positive, water positive and solid waste positive for over a decade.

"His superordinate vision to build an exemplary Indian enterprise, to serve national priorities, create the businesses of tomorrow, impeccable values and personal integrity, the width and depth of his strategic thinking and his compassionate conduct of business will continue to inspire us in the journey ahead," Sanjiv Puri, managing director of ITC Ltd, wrote on the company's website.

## <u>May 17</u>

## IIT-Bombay researcher's smartphone lens can find fake notes, detect malaria

https://timesofindia.indiatimes.com/city/mumbai/iit-bombay-researchers-smartphone-lens-canfind-fake-notes-detect-malaria/articleshow/69366113.cms



Researchers at IIT-Bombay have developed a 'smartphone microscope' that could help identify counterfeit notes, study blood cells on slides or even check contaminants in water. The fabricated lens has to be merely placed over the smartphone's camera to observe what it not visible with the naked eye.

The lens has been developed by Bhuvaneshwari Karunakaran as part of her PhD research under the guidance of professors Soumyo Mukherji and Debjani Paul from the Biosciences and Bioengineering department at IIT-B. They made use of a silicone elastomer called polydimethylsiloxane (PDMS) to develop the lens. An elastomer is a polymer with viscoelasticity properties. The miniature lens developed by the researchers could find use in malaria detection, endoscopes, dental tests, etc.

When water is filled in a glass test tube, the water surface is never flat, instead it forms a crescent shape. Similar crescents develop at the interface of two fluids, which do not mix with each other. The researchers made use of this property to make their lens. They placed the PDMS on water, which does not mix with it. Instead, it forms a hemisphere at the interface of both the fluids. "Once this liquid polymer is heated, it solidifies and doesn't deform," said Mukherji. By applying additional pressure at one end of the fluid interface, the curvature of the lens could be altered to change the magnification. The technique used by the researchers was published in the Journal of Biomedical Optics.

While traditional methods of fabricating lenses are expensive as they require labour and costly equipment, "this is a simple, inexpensive and off-the-shelf approach to fabricate miniature lenses," said the professor. These microscopes can be used to see objects of about 1.5 microns in size.

Mukherji said these tiny lenses could be put to multiple use. "Right from contaminants in water to the micro-features on currency note, everything can be seen by just placing this lens over the smartphone's camera," he added. Karunakaran said these lenses can also be used in endoscopes and sperm counting.

Assam: IIT-Guwahati hosts festival of Design Technology and Art https://nenow.in/north-east-news/assam-iit-guwahati-hosts-a-festival-of-design-technology-andart.html

ISHANYA 2019 – A festival of Design Technology and Art, Department of Design at IIT Guwahati, May 19-21, 2019 To mark two decades of design education and research programs of the Department of Design, IIT Guwahati is organizing 'ISHANYA'19 – Festival of Design, Technology and Art' between May 17 and 21 at its campus at North Guwahati.



The event forms part of the silver jubilee celebration of IIT Guwahati (1994 – 2019).

IIT Guwahati must be credited for envisioning an exemplary and novel educational programme in design with the commencement of the first undergraduate and doctoral programme in design in the country.

It establishes a significant landmark for the state of Assam for establishing a centre of excellence for the aspiring youths who aspire to pursue a promising career in design, creativity and innovation.

The event will be held at the Conference Centre, IIT Guwahati between May 19 and 20 next. Over these two days participants will witness presentations by leading designers, visionaries, educators, entrepreneurs, technologist, artist and creative professionals.



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Ishanya 2019 – An Exhibitions on Design, Technology and Art will be open to the public on May 19 and 20, 2019.

Abhilasha – A one day interactive workshop on career opportunities in design is scheduled on May 21and is open for invited school students and teachers.

Some of the keynote speakers invited for the event includes Prof SudhakarNadkarni, founder member, Department of Design, IIT Guwahati; Prof S Balram, professor, NID, Ahmedabad; Prof U A Athavankar, IDC School of Design, IIT Bombay, Michael Foley, Foley Design, Bengaluru; RanjanBordoloi, Red Dot Award Winner, Studio Bordoloi, Guwahati, Tanay Kumar, Graphic Designer and Founder, Fractalink Design Studio, Mumbai; Prof Pradeep Yammivayar, senior professor, DoD, IIT Guwahati, Sapna Behar, ICARUS NOVA Studio, Bangalore; Rajesh Dhaiya, CoDesign Studio, New Delhi and many more.

## <u>May 16</u>

## The Rural Drinking Water Technology Hackathon at IIT Kharagpur showcased cost-effective and simple methods of water purification

https://indiaeducationdiary.in/rural-drinking-water-technology-hackathon-iit-kharagpur-showcasedcost-effective-simple-methods-water-purification/

A team of postgraduate students and research scholars from the School of Water Resources, Jadavpur University (Debdas Chowdhury, Saurabh Kumar Basak and Priyabrata Mandal) emerged winners of the Rural Drinking Water Technology Hackathon organized by the Rural Development Centre (funded by the Design Innovation Centre) of IIT Kharagpur. They advocated the use of rusted nails for the adsorption of arsenic at the minimal cost of Rs 2,000 per household. They also showed the use of the dual media filter for removing arsenic and fluoride from water.

The aim of the Hackathon was to explore cost-effective and innovative solutions to address the challenges related to drinking water problems in rural India. While giving out prizes to the winners, Prof. Sriman Kumar Bhattacharyya, Deputy Director, IIT Kharagpur, reminded the teams that besides evolving technologies that were "simple and economically viable", they also needed to remember that removed pollutants should not back to the water source/supply. go As many as 13 teams from premier engineering institutes from eastern India participated in the Hackathon sponsored by the Design Innovation Centre at IIT Kharagpur that was set up recently under the government of India's "National Initiative for Design Innovation".

The second prize was lifted by Usha Kumari, a Chemical Engineering student of IIT Kharagpur who devised a way to remove arsenic and flouride from water with alumina activated by sulphuric acid.

The third prize was jointly shared by a team from NIT Warangal, which showed how plants can be used for 'phytoremediation', and a team from IIEST, Shibpur, which showed how electrocoagulation can be used to remove arsenic from water.

The winning technologies at the Hackathon were discussed at the workshop on 'Rural Water Quality and Management' that began on May 14-16 at IIT Kharagpur, held jointly with the University of

Edinburgh. The winning teams will have their projects funded by the DIC and can work in association with IIT Kharagpur to further develop their ideas. They also won cash rewards amounting to Rs 60,000.

A team from the University of Edinburgh judged the Hackathon in association with IIT Kharagpur. Prof. Kate Heal of the university said, "I was greatly impressed by the diversity of ideas –from phytoremediation, solutions of rainwater harvesting, to the number of filtration systems. Some of the contestants had also thought about issues like the economy and access to water." Also present was Prof. Neil Robertson, whose team has been working on photocatalysts.

The Hackathon showcased easy-to-implement technologies that made use of locally available materials like rice husk, biochar, sawdust, iron nails, gravel, the ubiquitous 'matka' or clay water pot. Prof. Somnath Ghosal of the Rural Development Centre of IIT Kharagpur, who coordinated the Hackathon said, "We had about 30 applications out of which 13 were shortlisted by the jury." The momentum set by the Hackathon will continue with the International Workshop on Rural Water Quality and Management jointly held by the University of Edinburgh and IIT Kharagpur. The workshop will lead to joint studies into issues such as water treatment, water contamination, diffuse pollution, water-food nexus, waste water management, eco-system linkages and also look into the role of local communities in water management.

## Six IIT students bag best poster award

https://www.tribuneindia.com/news/chandigarh/six-iit-students-bag-best-posteraward/774017.html

Six students of the IIT-Ropar received the best poster award and Dr Rajendra Srivastava, Chemistry Department, and Dr Mukesh Kumar, Physics Department, were felicitated with the Faculty Research and Innovation Award at a two-day research conclave which concluded at the institute here today.

Students awarded for best poster are Sachin Sharma (physics), Ashish Kumar (chemistry), Monika (CBME), Sonika (mathematics), Akanksha Paul (computer science engineering) and Malkeet Singh (mechanical engineering).

The event showcased some of the cutting-edge research being carried out by students and research scholars across diverse disciplines.

## **DTCP** to fix formula to calculate external development charge

https://www.hindustantimes.com/gurugram/dtcp-to-fix-formula-to-calculate-externaldevelopment-charge/story-gHdVIroRp93HyJIfF3D6KN.html

EDC are revised every three years. The calculation till now was based on market rates in an area, officials said.



EDC are collected from developers to carry out work like building roads, setting up electrical infrastructure, laying down water and sewerage lines, constructing drains and related infrastructure.

The department of town and country planning (DTCP) has decided to fix a formula for the uniform calculation of external development charges (EDC) that are sought from builders for the development of master facilities. A meeting in this regard was held in the city on Wednesday between DTCP officials and experts from IIT Delhi, IIT Rourkee and the National Institute of Financial Management. The meeting was chaired by DTCP director KM Pandurang, who said that suggestions were sought from experts to determine the best possible way to calculate the EDC. "We want to fix a formula on the basis of which the EDC are calculated uniformly," Pandurang said.

EDC are revised every three years. The calculation till now was based on market rates in an area, officials said. Since there was no fixed formula to calculate the EDC, several builders questioned the base rate of land taken by the department, which led to disputes and delay in payment of charges, officials said. In the wake of increase in price of land as well higher cost of development, the department has now decided to come up with a fixed formula based on a number of factors to ensure the EDC calculation is carried out scientifically, officials said.

Another reason is that there are hundreds of acres of land in Sohna, Gwal Pahari, Farrukhnagar and in developing sectors in Gurugram, for which developers have applied for licenses. Officials said that the new licenses are likely to be issued only after the formula is finalised.

EDC are collected from developers to carry out work like building roads, setting up electrical infrastructure, laying down water and sewerage lines, constructing drains and related infrastructure. The charges are calculated by the department based on the area being developed by a particular builder.

As per the DTCP officials, the task of fixing the EDC formula would be given to one of the agencies that participated in the discussion. A decision in this regard would be taken in the next two or three weeks, they added.

RS Bhath, district town planner, Gurugram, said that a meeting was also held with the Dakshin Haryana Bijli Vitran Nigam senior officials on Wednesday to discuss the issue of inadequate power infrastructure in private colonies. "This matter was discussed in detail," he said.

## <u>May 15</u>

Now, BMC bridge engineers to be trained by IIT-Bombay experts https://www.dnaindia.com/mumbai/report-now-bmc-bridge-engineers-to-be-trained-by-iitbombay-experts-2749312

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The BMC has already sent one batch of road engineers to be trained by the IIT.



Staircase Picture for representation

The engineers from the bridge department of the Brihanmumbai Municipal Corporation (BMC) will be trained under the Indian Institute of Technology, Bombay (IIT-B) experts to enhance their skills at inspecting bridges. The decision was taken in the engineers' association meeting with the assistance of new BMC commissioner Praveen Kumar Pardeshi on Tuesday morning. The BMC has already sent one batch of road engineers to be trained by the IIT.

Meanwhile, the engineers' association withdrew their agitation after a positive response from the commissioner.

New commissioner Praveen Pardeshi assured to try to implement the new law by the state government to not file any case against government workers until departmental inquiry is complete. Meanwhile, the engineers' association expressed regret over their limited expertise in inspecting bridges. Pardeshi readily agreed to send engineers to be trained by experts from the IIT, Bombay. "It is very necessary to keep pace with current technology. This will help to improve skills of BMC engineers. The training will start in June," said Sainath Rajadhyaksha.

BMC had already decided in January to send 50 engineers from Road department to IIT Bombay for detailed training on road construction, repairs and resurfacing. They will also look at ways of eliminating potholes. The BMC pays IIT-B Rs. 14 lakh for the two-day program. One batch of engineer got the training from IIT. A similar training programme was held three years ago. However, since the staff keeps getting transferred, BMC decided to train the new batch too.

The engineers meet commissioner to express their condemnation over the arrests of their colleagues in the aftermath of the recent Himalaya foot over bridge collapse near CSMT. 42 engineers from the Bridges Department were on 15 days mass leave from May 9 and all other engineers supported them from Monday by working as per the rulebook. This affects monsoon preparedness as engineers are the backbone of road resurfacing work, revamping of the stormwater drainage system, nulla widening to prevent water logging in the rainy season. "The commissioner

gave a positive response and assured preventive measures to avoid arrest of BMC workers without departmental inquiry. So we are back to work," said Sainath Rajadhyksh.

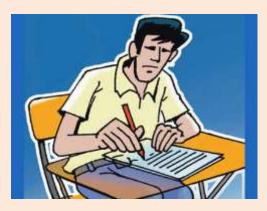
#### **Sweet Promise**

Newly appointed BMC commissioner Pravin Pardeshi assured to try to implement the new law by the state government to not file any case against government workers until departmental inquiry is complete

## <u>May 14</u>

## 8,000 EWS applicants for IIT didn't use quota sops

https://timesofindia.indiatimes.com/city/mumbai/8000-ews-applicants-for-iit-didnt-use-quotasops/articleshowprint/69300465.cms



A substantial number of IIT aspirants who are eligible for reservation in the economically-weaker section (EWS) category did not utilize the benefits and sought admission in the general category. Over 50% of the 43,035 students (around 23,000), who appeared for JEE (Main) under EWS category, have qualified for JEE (Advanced). Of these 23,000, around 8,000 have not sought benefit of lower cut-offs for the EWS quota, indicating that their performance is on a par with students from the open category.



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The remaining 15,000 have registered for JEE (Advanced) under the EWS quota among open category. The cut-off for qualifying for JEE (Advanced) was 89.75 percentile for open category students, and for EWS quota, it was 78.21percentile. Data from IITs indicate that EWS students who did not take advantage of the lower cut-offs, have scores above 89.75 percentile.

The registrations for JEE (Advanced) ended on May 9. However, it has been extended by five days for students from cyclone-hit Odisha. Excluding Odisha, around1.73 lakh students from all over the country have registered for JEE (Advanced) this year.

A professor from one of the IITs said that this is the first-year of EWS quota implementation, and therefore, there is a lot of confusion among students. "There are students who have appeared for JEE (Main) in January, and the EWS quota was announced later. Though these students were given a chance to update their information, they may have missed the notification. There is another set of students, who registered for JEE (Main) under the EWS quota and did not manage to procure a valid certificate. We are getting several complaints, which we are forwarding to the organising IIT," said the professor. The organising chairman for JEE (Advanced) 2019 is from IIT-Roorkee. The professor added that the final JEE (Advanced) registration data may slightly differ.

Another professor said there is also a possibility that some of the 8,000 students from the EWS quota have really done well in JEE (Main) and are well represented among the meritorious candidates.

IITs will implement the 10% EWS quota in two phases. Since the EWS quota will be introduced without disturbing the existing seats, all the 23 IITs will be increasing their intake capacity over the two years– 2019-20 and 2020-21 academic sessions. An IIT director said EWS quota is a good move but is a strain on the available infrastructure. Most IITs, including IIT-B, will take a couple of years to build infrastructure to accommodate the additional 25% intake.

Professor Pradipta Banerji, former director of IIT-Roorkee, said that even if fewer students from the economically-weaker section of the society are benefiting from the quota, it is a welcome change. "IIT system is known for assisting students from the economically weaker sections," said Banerji. However, he added, that the annual income cut-off (of Rs 8 lakh) of families, to seek advantage under the quota is very high. "This should be used to help the really disadvantaged students," he added.

## <u>May 13</u>

Scientists prepare 20 tonnes of food, energy bars for cyclone Fani victims https://timesofindia.indiatimes.com/india/scientists-prepares-20-tonnes-of-food-energy-bars-forfani-victims/articleshow/69304593.cms



Scientists in Himachal Pradesh at CSIR-Institute of Himalayan Bio-resource Technology (CSIR-IHBT), Palampur near here are going to supply one lakh units of ready to eat canned food and high energy and protein bars of 20 tonnes for distribution to the victims of Cyclone Fani hit areas in Odisha.

Dr Sanjay Kumar, Director of CSIR-IHBT, informed that institute has technologies for preparation of ready to eat foods of global standards and in such tragic circumstances it is the duty of national institutes to come forward and support the affected population with their need based technologies and products.

He further stated that similar support of ready to eat food products was extended to the victims of during Kerala floods in August 2018.

## <u>May 12</u>

## IIT-Jammu may miss deadline of permanent campus by Mar next

https://www.tribuneindia.com/news/jammu-kashmir/iit-jammu-may-miss-deadline-of-permanentcampus-by-mar-next/772181.html

Tendering process likely to begin in Sept | Transit campus still incomplete

Institute has over 350 students

IIT-Jammu came into existence on May 1, 2016, after a memorandum of understanding was signed between the J&K Higher Education and Department and the HRD Ministry. The first academic session began on August 6, 2016. At present, the institute offers B.tech in computer science and engineering, electrical engineering and mechanical engineering. The current strength is 360 students.



Students attend a class on the transit campus of the IIT- Jammu at Jagti in Nagrota. Photo: Inderjeet Singh

The authorities of IIT-Jammu are in a fix following directions of the Union Human Resource Development Ministry asking the heads of six new IITs to complete the construction of their new campus within the stipulated time. The permanent campus of IIT-Jammu is to come up at Jagti in Nagrota.

The Union Cabinet had on October 24, 2017, approved a Rs 7,002-crore plan for the construction of permanent campuses for six new IITs — Tirupati (Andhra Pradesh), Palakkad (Kerala), Dharwad (Karnataka), Jammu (J&K), Bhilai (Chhattisgarh) and Goa. The deadline was fixed for March 31, 2020.

However, sources said the permanent campus of IIT-Jammu was unlikely to come up by then.

Owing to the slow pace of the project, local students are preferring engineering institutes, including IITs, outside the state.

Harjot Singh from Jammu, said, "I have cracked IIT-JEE main exam with good marks. But I have opted for Delhi Technological University (DTU) because of better infrastructure and future prospects."

He said the establishment of IIT-Jammu was an added advantage for the students from the state, but looking at the current situation, they could not put their future at stake. The construction of the permanent campus was yet to begin. Even the transit campus was incomplete. It would take a long time to have a full-fledged IIT campus in the state, he added.

Commodore Naresh Kumar (retd), OSD, IIT-Jammu, said tenders for the construction of the main building were likely to be issued in September. "Land has been allotted for the project. The construction has been entrusted to the Central Public Works Department."

He said after the completion of the tendering process, the construction would start.

On security issues, the OSD said they had already take up the matter with the higher authorities. A special force would be deployed for security on the campus. "For the time being, we have adequate security measures in place on the transit campus", he added.

## <u>May 11</u>

## IIT Madras Data Shows Forward Caste, Financially Weaker Students Well Represented; Raises Questions Over EWS Quota

https://swarajyamag.com/insta/iit-madras-data-shows-forward-caste-financially-weaker-studentswell-represented-raises-questions-over-ews-quota

Data on the representation of students from various caste backgrounds and economic strata of society collected by IIT, Madras has raised questions over the need for a quota for Economically Weaker Sections (EWS) in higher education institutes, reports The New Indian Express.

Firstly, the statistics about 2017 and 2018 student admissions into various courses offered by the varsity showed that almost all the 50 per cent or so of the open category seats had been clinched by applicants from the Forward Castes (FC). As an example, there were 256 open category seats for the BTech course in 2018, out of which 255 seats went to FC candidates, with only one being take up by an OBC applicant.

Further breaking down the data as per the financial backgrounds of students, it has been revealed that of the 854 students who had taken admission in BTech and dual degree courses, a clear majority of 568 students belonging to families with annual incomes below Rs 10 lakh.

On the other hand, the 10 per cent EWS quota being implemented by the incumbent government is applicable for students whose family incomes are below 10 per cent and who do not avail of any other quota benefits. The data backs the view that such sections of the population are already quite well represented in student intake.