



NEWS CLIPS

March 16-22, 2019

Highlights of the Week@IITD

Too hot to work? It's the warming climate to blame and that's threatening crops too

March 21, 2019 <https://www.researchmatters.in/news/too-hot-work-it%E2%80%99s-warming-climate-blame-and-%E2%80%99s-threatening-crops-too>



Too hot to work? It's the warming climate to blame and that's threatening crops too

Rising temperature is a challenge for developing countries like India as it impacts economic development. Studies have shown that economic growth of tropical developing countries might slow down by 1.3% per year with as little as one-degree rise in the mean temperature. Adding to this body of evidence, a recent study by researchers from the Indian Institute of Technology Delhi (IIT Delhi) has found that variations in temperature affect crop production and worker efficiency—two crucial pillars of our economy. The study is accepted for publication in the journal *Environmental Research Letters*.

Knowledge about the evolution of temperature variations and seasonal changes plays a role in designing effective strategies for reducing their impact. In this study, the researchers used data about daily maximum and minimum temperatures from 1951 to 2010. They then estimated the annual fluctuations in the temperatures extremes during the favourable 'growing season' for crops and studied the temperature trends during the transition period—the time of moderate weather between intense summer and winter and vice versa.

The study found an increasing trend in both night-time and day-time temperatures all over the country. This increase is prominent in the day-time temperature from October to November. "The drastic and joint increase in the day and night temperatures will be a major threat to crop cultivation

in India. Especially, the largest wheat production states of Punjab, Haryana and Uttar Pradesh will be severely affected due to the increase in night-time temperature, particularly in winter,” a press release from IIT Delhi quotes the researchers.

The researchers also found that extreme cold temperatures have declined over the study period. However, hot extremes, where the maximum temperatures hover between 30-32o C, have intensified over central India and the Northeast.

The span of pleasant, comfortable days or transition period has reduced across the country, the study found. “The southern west coast – a region encompassing the Western Ghats and Kerala, termed as God’s own country, with natural landscapes and comfortable climate, shows a drastic reduction of comfortable days in recent decades. Though not this intense, similar changes are also observed in east-coast, central India, northeast and foot-hills of Himalayas”, say the researchers.

The findings reveal that summer is encroaching into the transition period. Comfortable days and nights are increasing in the semi-arid regions (northwest), which is otherwise known for the low and high-temperature extremes.

Quantification of temperature changes across India might help policymakers to design region-wise strategies for mitigating its impact.

“Our study highlights the importance of adopting adaptation options such as dynamic cropping pattern, change in crop variants and types, and flexible human working hours in tropical countries like India, to tackle its highly dynamic weather,” conclude the authors.

IITD and NII tie up for cancer diagnosis technologies

March 19, 2019 <https://timesofindia.indiatimes.com/home/education/news/iitd-and-nii-tie-up-for-cancer-diagnosis-technologies/articleshow/68480682.cms>



IIT-D, NII signs MoU to develop technologies for quick and accurate diagnosis of life-threatening diseases, reports Shruti Niraj

IIT Delhi has signed an MoU with the National Institute of Immunology (NII) Delhi to come up with a

joint PhD programme that will work to develop new technologies for cancer diagnosis, tuberculosis etc.

"This will help in collaborating between engineers and biotechnologists, who can jointly develop technologies relevant in medicine and treatment of dreaded diseases. As a part of seed funding, we will fund our faculty members for two-years and then they can seek help from external sponsors," says V Ramgopal Rao, director, IIT Delhi.

"The researchers will work together on projects such as cell biology, cancer, tuberculosis etc. to understand the mechanical properties of the affected cells and develop a technology that could be used for the smooth treatment," he adds.

While both the institutes will fund the project, students from NII will receive a certificate from IIT-Delhi.

"One of the objectives of this collaboration is to initiate 20 interdisciplinary research projects between the faculty of IIT Delhi and scientists from NII Delhi with seed money provided by both the institutions," said Rao.

IIT-D is also planning to collaborate with the All India Institute of Medical Sciences (AIIMS) for 30 research projects in the field of medical diagnosis. It is also working with the Indian Council of Agricultural Research (ICAR) to develop adequate technology required in the field of agriculture.

IIT-Delhi researcher Mohammad Adnan selected for Lindau Nobel Laureate meet

March 18, 2019 <https://economictimes.indiatimes.com/news/science/iit-delhi-researcher-mohammad-adnan-selected-for-lindau-nobel-laureate-meet/articleshow/68463798.cms>

A research scholar from Indian Institute of Technology (IIT) Delhi, Mohammad Adnan, has been selected for the 69th Lindau Nobel Laureate Meeting taking place in Lindau, Germany this year.

Adnan is currently a doctoral student under the supervision of professor G Vijaya Prakash, Nanophotonics Labs, Department of Physics, IIT Delhi.

Adnan is among 600 other researchers selected for this year's Lindau Nobel Laureate meeting who would interact with 42 most qualified young scientists from around the globe.

"This is an excellent opportunity where 600 most young talented research students from 88 countries around the world are selected to interact with the Nobel laureates from the world," Adnan told ET.

"These interactions will help us get new ideas from other researchers," he said. Adnan is currently working on high intensity ultra-fast light matter interaction of special kind of metal organic framework which is very useful for advance optoelectronic devices.

“These materials are very cost effective with very high quantum efficiency,” he said. These lasers can also be used for medical treatment and manufacturing.

Each year since 1951, Nobel Prize winners in Chemistry, Physics, Physiology or Medicine have been meeting in Lindau, Germany, to discuss major issues of importance to their fields with students from around the world. The meetings include lectures, panel/ round-table discussions on interdisciplinary topics and informal small- group meetings with the Nobel Prize winners.

The Department of Science & Technology (DST) has been sending a group of students /young researchers to these meetings, since 2001. This time, the 69th Noble Laureate Meeting is dedicated to Physics.

IIT Delhi DMS Ranked top in Management Research in India by QS World ranking

March 15, 2019 <https://www.jagranjosh.com/news/iit-delhi-dms-ranked-top-in-management-research-in-india-by-qs-world-ranking-148242>

IIT Delhi Management Research Ranking: IIT Delhi has topped the rankings in the field of management research institutes in India. The Department of Management Studies (DMS) of IIT Delhi topped among the management institutes of India in the field of management research as per the recent QS World University Rankings by subject. This ranking is clearly indicative of the fact that IIT Delhi is making a benchmark when it comes to management research.

Commenting upon this achievement, Prof. M. P. Gupta, who is the Head of the Department of DMS, said, “Our entire team’s concerted efforts over the past 36 months is bearing fruit and the market place is recognizing, valuing and duly rewarding our students. We are at 100% placements for our current batch and secured a 100% internships for the next batch. I thank our team and the market place for recognizing our true worth. As an Institute of Eminence (IoE) IIT Delhi and DMS will scale new heights in serving our ecosystem in an inclusive fashion.”

IIT Delhi was in competition with all the IIMs and IITs of the country. But leaving all of them behind, IIT Delhi managed to get the first rank for management research. The ranking by QS is given on the basis of “citations per paper”. As per the QS ranking, the “citations per paper” for IIT Delhi was 82.5 which was more than other IITs and IIMs of the country. With this ranking, the IIT Delhi has improved its own ranking as compared to the previous ranking.

IIT Delhi was given the honour to be recognised as the Institute of Eminence (IoE) by the MHRD on 9 July. Besides IIT Delhi, five other institutes including IIT Bombay have been put in this special category. UGC had suggested 20 parameters to qualify to be an Institute of Eminence (IoE). IIT Delhi already fulfils many of these parameters and will get a grant of Rs 1000 crore over the next five years.

March 22

UGC Announces ASEM-DUO-Belgium Wallonia-Brussels 2019 Fellowship for Professors, Lecturers

<https://www.ndtv.com/education/study-abroad-ugc-announces-asem-duo-belgium-wallonia-brussels-2019-fellowship-for-professors-lecture-2011174>

University Grants Commission (UGC) has invited application for the ASEM-Duo Wallonia-Brussels 2019 fellow.



ASEM-DUO-Belgium Wallonia-Brussels 2019 Fellowship application for Professors

University Grants Commission (UGC) has invited application for the ASEM-Duo Wallonia-Brussels 2019 fellow. The grant which is managed by the Academy for Research and Higher Education (ARES) has been instituted to promote exchange of people between Belgium/Wallonia-Brussels and Asian ASEM member countries. Under this fellowship lecturers/professors from universities in Asia will be given financial support for their exchanges with Belgium/Wallonia-Brussels. The last date to submit application is April 24, 2019.

The fellowship is open for students and PhD students, Professor emeritus, honorary professors, and Teaching Assistants. Exemptions may be provided in case of Colleges of arts. The selection committee will assess on a case-to-case basis.

For the academic year 2019-20 the fellowship will be granted to a pair of professors for a project that should take place between August 1, 2019 and August 31, 2020. The duration of the exchange has to be minimum 1 month and maximum 3 months.

The total amount of the ASEM-Duo Wallonia-Brussels 2019 fellowship is 50,000 Euro. The amount of the grant awarded to the pair of professors is 5,000 Euro per month for the two professors. The amount shall cover the travel expenses and per diem capped at the amount of the grant.

The call for application along with the application form is available on the UGC website. Interested individuals can go through the complete notice to determine their eligibility for the fellowship and apply accordingly.

March 20

President Awards School Girl from Odisha for Her Innovation

<https://www.ommcomnews.com/odisha-news/president-awards-school-girl-from-odisha-for-her-innovation>

A school girl from Dhenkanal district of Odisha has been awarded by the President of India for her innovation which will not only help protect ourselves from the ill-effects of global warming but also will provide employment opportunities for some people.

Sriyanka Samal, Class 10 girl of Utkal Bharati Bidyapitha at Khaleiborai in Hindol of the district, has been awarded by President Ram Nath Kovind for her project on bio asbestos, which was highly appreciated during the 7th National Level Exhibition and Project competition (NLEPC) under Inspire Awards-2019 held at IIT, Delhi during February 14-15.

The bio asbestos is made from palm leaves and latex of Mahul trees. As per Sriyanka, growing more palm and Mahul trees is a solution to protect ourselves from the ill-effects of global warming. Further, people can use her innovation to establish a business on bio asbestos.

Sriyanka's father Kuber Samal, who is a driver by profession, is not only the person proud of her achievement but she was also welcomed and felicitated by the District Collector with a certificate of appreciation.

March 19

IIT Roorkee shifts JEE Advance 2019 exam date to May 27

<https://timesofindia.indiatimes.com/home/education/news/iit-roorkee-shifts-jee-advance-2019-exam-date-to-may-27/articleshow/68477553.cms>



The Indian Institute of Technology (IIT), Roorkee has shifted the Joint Entrance Examination (JEE) Advanced date to May 27, 2019.

Earlier, the JEE (Advanced) examination was to be conducted on May 19, 2019. The JEE Advanced examination will be conducted on Monday (May 27) in two shifts - Paper 1 from 09:00 am to 12:00 noon and Paper 2 from 02:00 pm to 05:00 pm.

The JEE (Advanced) exam date has been changed as it was clashing with the seventh phase polls, to be conducted on 59 seats of the Lok Sabha elections at

1. Bihar: 8 seats, 2. Jharkhand: 3 seats, 3. Madhya Pradesh: 8 seats, 4. Punjab: 13 seats, 5. West Bengal: 9 seats, 6. Chandigarh: 1 seat, 7. Uttar Pradesh: 13 seats, and 8. Himachal Pradesh: 4 seats.

IIT JAM Result 2019 to be Declared Tomorrow at jam.iitkgp.ac.in. How to check

<https://www.news18.com/news/india/iit-jam-result-2019-to-be-declared-tomorrow-at-jam-iitkgp-ac-in-how-to-check-2071397.html>

IIT Kharagpur will declare the JAM result 2019 on the official website at jam.iitkgp.ac.in. A total of 2152 seats are allotted in several IITs across the country who are accepting the JAM 2019 score.

IIT JAM Result 2019 | Indian Institute of Technology, Kharagpur will announce the IIT JAM Result 2019 tomorrow (March 20). IIT Kharagpur will declare the JAM result on the official website at jam.iitkgp.ac.in. JAM exam was conducted on February 10, 2019 in two sessions. Since this year the JAM examination was conducted by IIT Kharagpur, the result will be declared by the institution.

This year, Session I of JAM exam was held from 9.30am to 12.30pm and Session II was held from 2.30pm to 5.30pm. Last year, IIT JAM was conducted by Indian Institute of Technology, Bombay. Courses in which candidates can get admission on the basis of their score in JAM are MSc (offered at IITs, NITs, IEST, SLIET) and integrated PhD (offered at IISc and IISERs). A total of 2152 seats are allotted in several IITs across the country who are accepting the JAM 2019 score.

How to Check IIT JAM Result 2019

Step 1. Visit the official website of IIT JAM at jam.iitkgp.ac.in.

Step 2. Click on the JAM 2019 Result link displayed on the homepage.

Step 3. As a new page opens, enter your enrolment number and password.

Step 4. Click on 'Submit'. Your JAM result 2019 will appear on your screen.

Step 5. Download the result and keep a print-out of it for further reference.

JAM examination is an entrance test conducted for admission to M.Sc courses in IITs and Indian Institute of Science (IISc) and other Centrally Funded Technical Institutes (CFTIs) like National Institutes of Technology (NITs), Indian Institutes of Science Education and Research (IISERs), Indian Institute of Engineering Science and Technology Shibpur (IEST Shibpur), and Sant Longowal Institute of Engineering and Technology Punjab (SLIET Punjab).

Trimble, IIT-M in pact for 3D research and training

<https://www.thehindu.com/business/Economy/trimble-iit-m-in-pact-for-3d-research-and-training/article26583769.ece>

Nasdaq-listed Trimble will work with IIT Madras to establish a state-of-the-art technology lab for architecture, engineering, construction. The lab will expand the leadership of IIT Madras in training

and research in 3D building design, digital fabrication and sustainable built environment. "The objective is to enable IIT Madras integrate Trimble's solutions across its curricula that are rapidly transforming how building and living environments are designed and constructed," according to a statement.

The lab will include a broad range of Trimble's industry-leading software solutions such as RealWorks® scanning software, Trimble Business Center, Vico Office Suite, GCEstimator™ Suite, Tekla® Structures, Tekla Structural Designer, Tekla Tedds, Sefaira Architecture and its popular 3D modeling software, SketchUp Pro.

March 18

IIT-Bombay to hold condolence meet for alumnus Parrikar

https://www.business-standard.com/article/pti-stories/iit-bombay-to-hold-condolence-meet-for-alumnus-parrikar-119031800223_1.html

The Indian Institute of Technology Bombay (IIT-B) will hold a condolence meet on Monday evening to pay tributes to their alumnus, Goa chief minister Manohar Parrikar, who died after a long illness.

The meeting will be held at 5 pm at the institute's P C Saxena auditorium here, an IIT-B spokesperson said.

Parrikar, 63, who had also been the defence minister, died on Sunday evening at his private residence in Goa after battling a pancreatic ailment since over a year.

In 2017, he addressed the 55th convocation of the Mumbai-based institute where he told the graduates to take up jobs in social and development sectors.

An alumnus of the famed institute, he also asked students to join politics and the Army, said a former IIT-B student who was present at the convocation ceremony.

"Why can't IIT graduates, who have had the best engineering education in the country, take up academics and run some of these colleges, and transform their quality?" Parrikar had then said.

The institute in its condolence message said Parrikar's demise came as a shock to them.

"He was the institute's distinguished alumnus and keenly involved with many initiatives at IIT Bombay. He was also deeply involved with the launch of IIT Goa," it said.

On the Alumni Day in 2014, IIT-B felicitated Parrikar, who graduated in metallurgical engineering from the institute in 1978, in recognition of his contribution to the development of the country.

GATE 2019 Topper: IIT Dhanbad's Shashank Mangal tops the exam with 989 out of 1000 – wishes to join IES

<https://www.timesnownews.com/education/article/gate-2019-topper-iit-dhanbad-s-shashank-mangal-tops-the-exam-with-989-out-of-1000-wishes-to-join-ies-appsgate-iitm-ac-in/384490>

GATE 2019 Result were declared by IIT Madras on March 15, 2019 and is available on appsgate.iitm.ac.in and gate.iitm.ac.in. Shashank Mangal of Madhya Pradesh and student of IIT Dhanbad has topped the exam.



Indian Institute of Technology, IIT Madras on Friday released the result for Graduate Aptitude Test in Engineering, GATE 2019. Shashank Mangal, a final year students of IIT Dhanbad has topped the examination ith 989 out of 1000 marks. Shashank hails from Morena in Madhya Pradesh and aspires to join Indian Engineering Services, IES.

Shashank is the son of a businessman in Morena and is studying Electronics Engineering from IIT Dhanbad. He had scored 6214 rank in JEE Advanced examination. In an interview with HT, Shashank says that he is extremely fond of his subject and wishes to make engineering more beneficial for the society.

Speaking to the daily, Shashank says, “I love electronics. I don’t study my subjects to clear the exam but to understand the concept. I never let go any topics which I found difficult without understanding in depth.”

Topping was Shashank’s dream. Already at the helm of his Institute’s Electrnics Engineering branch, Shashank was no stranger to hard work. “I started preparation for GATE one year ago with summer crash course. I practised a lot and tested my preparation with online test series. I used to study 10-12 hours a day but it was never a burden or pressure for me, rather it was more a mind booster for me,” he says.

He gave the credit for his success to his family. His sister is also an engineer and is preparing for GATE as well. When asked if he expected to top he denies the same. “I am surprised, shocked and happy as I always wanted to make my family and city proud but I didn’t expect that it would come true so soon.”

Indian Institute of Technology (IIT) Indore’s marvel project: A device that filters heat from sunlight

<https://timesofindia.indiatimes.com/city/indore/iit-is-marvel-project-a-device-that-filters-heat-from-sunlight/articleshow/68455885.cms>



It's a eureka moment for Indian Institute of Technology (IIT) Indore. A research team has developed technology that will keep houses and cars cooler than external environment by insulating about 50 per cent of direct heat from the sun. The electrochromic device can be used in smart windows, flexible devices, automobile industry to modulate colour and heat with one's requirements without compromising on visibility inside. Currently, the device is 50 per cent heat insulated. But the quest for perfection is on as the institute is working on enhancing capacity to around 70 per cent for better results.

A team of four members were working on this technology for over three years led by Dr Rajesh Kumar, associate professor of Physics at IIT-Indore, main investigator Anjali Chaudhary, Devesh Pathak and Manushree Tanwar.

Kumar said, "This device insulates the two environments and minimizes flow of heat. It allows normal light to pass through but blocks the heat. It stops approximately 50 per cent heat component of sunlight helping in modulating inside temperature." It is easy to install the device on transparent glass substrates as well as on flexible ones allowing one to integrate them on windows of any shape.

Kumar said that in winters inside temperature can be kept warm with help of this device that can be easily fitted on to any normal glass used in buildings, cars and industries.

He said major part of sunlight that falls on earth consists of visible and infrared radiation. If these two components are isolated, a better solution to use them can be achieved with minimum utilization of energy.

Currently, almost 41 per cent of energy consumption in the world takes place to maintain appropriate light and temperature conditions in buildings.

Main Investigator Anjali Chaudhary said that the device insulates two sides so that comparatively less energy is required to maintain temperature, either by air conditioning or heating, in one side. The new technology relies on organic materials and consumes very little energy. The institute is planning to apply for patent once performance of device reaches 70 per cent of heat insulation.

IIT Madras, SWAYAM-NPTEL part of Indo-Afghan Collaboration on Digital learning initiatives Ministry of Human Resource Development

(MHRD) Government of India signs MoU with Ministry of Higher Education, Government of Islamic Republic of Afghanistan in Digital Education Initiatives

<http://skilloutlook.com/alert/iit-madras-swayam-nptel-part-of-indo-afghan-collaboration-on-digital-learning-initiatives-ministry-of-human-resource-development-mhrd-government-of-india-signs-mou-with-ministry-of-higher-education>



The Ministry of Human Resource Development, Government of India, is going to work with the Afghanistan Government on Digital Education Initiatives, which include many prominent programs developed by Indian Institutes of Technology. This collaboration will contribute to develop bilateral relations and beget mutual benefits for the two countries. The MoU was signed today (15th March 2019) at IIT Madras.

Speaking during the occasion, Mr. R. Subrahmanyam, Secretary (Higher Education), Ministry of Human Resource Development, Government of India, speaking on the occasion said, “The historic ties between India and Afghanistan would grow further with this collaboration. This would enrich the lives of young people achieve their aspirations.”

Prof M. Homayoun Qayoumi, Hon’ble Senior Advisor to the President of Afghanistan and Acting Minister of Finance, highlighted the impact of education in the progress of every country and this collaboration would help in providing better education facilities.

The Fields of Cooperation include:

- * Sharing of Online Education Platform, named ‘Study Webs of Active Learning for Young Aspiring Minds’ (SWAYAM) developed by Government of India,

- ^ Facilitate use of Massive Open Online Courses (MOOCs) available in SWAYAM Platform by students and faculty of the Educational Institutions in Afghanistan,

- * Imparting training to the faculty and students in the Educational Institutions in Afghanistan for using the SWAYAM Platform and Capacity building of Afghanistan faculties and related staff in e-learning,

* Assisting in Uploading and Publishing of existing courses developed by Educational Institutions in Afghanistan on the SWAYAM Platform,

* Assisting Ministry of Higher Education, Afghanistan to develop/set up Afghanistan's own MOOC platform.

SWAYAM is the National MOOCs platform, which has multiple National Coordinators offering courses at various academic levels. The National Programme on Technology Enhanced Learning (NPTEL), a project of the MHRD, is one of the biggest National Coordinators offering a large bouquet of courses as part of SWAYAM. IIT Madras has been the fore-runner starting the MOOCs initiative as early as 2014, developing and strengthening the MOOCs portal being used for delivery of the courses, with release of an open source version of this in the works.

One of the main objectives of the MOU is to facilitate students and faculty from Afghanistan to enroll and learn from the courses offered on SWAYAM, which will expose them to latest technology courses and also upskill them in areas of their interest.

Among the other initiatives envisaged by this MoU is the sharing and access with the Higher Educational Institutions of Afghanistan of various Indian facilities such as the National Digital Library of India (NDLI), VIRTUAL LABS, Spoken tutorials for Higher Educational Institutions of Afghanistan and sharing of experience and participation of Higher Educational Institutions of Afghanistan on Robotic projects and symposiums held under e-Yantra,

Further, Establishment of Joint Educational Programmes between Higher Educational Institutions of Government of India and Higher Educational Institutions of Afghanistan is also on the anvil. The MoU will facilitate assisting the Ministry of Higher Education (MoHE) of Islamic Republic of Afghanistan to carry out the curriculum development process including sharing of curriculum developed by MHRD.

Other salient features include:

* Promoting mobility of students between the two countries. Both the parties agree for the Mutual recognition of academic qualifications prevalent in both the countries. An instrument for implementation shall be signed separately,

* Facilitating the Afghan students to study in reputed higher educational Institutions of India, under the Study in India Programme,

* Assisting Ministry of Higher Education in Quality Assurance and Accreditation Processes, Administrative Reform of MoHE structures, Joint Academic Journal Establishment, Joint Research Program with Indian Institutes, Document Attestation, sharing experience on Control and Monitoring of Private Institutes and other academic programs.

CPCB is directed to expand the list of cities for clean air action plans

<https://economictimes.indiatimes.com/news/environment/pollution/cpcb-is-directed-to-expand-the-list-of-cities-for-clean-air-action-plans/articleshow/68476560.cms>

India's clean air programme may not be limited to 102 cities. The National Green Tribunal (NGT) has directed the Central Pollution Control Board (CPCB) to expand the list by including other cities and towns which do not meet the prescribed national ambient air quality standards.

Though the list at present has 102 nonattainment cities, the update may expand it to over 200 by adding more cities/towns in it if fresh air quality data is taken into consideration. The non-attainment cities are those which do not meet the National Ambient Air Quality Standards.

The CPCB had identified 102 cities using air quality data from the years 2011-15 and WHO report. But, recently an independent analysis of the year 2017 air quality data of 313 cities/towns by the Greenpeace India put the number of non-attainment cities/towns at 241. It's 139 more than what the central pollution watchdog had identified.

"The CPCB is directed to update the number of cities," said the tribunal's principal bench, headed by chairman justice Adarsh Kumar Goel, in its order on Friday, while referring to cities which are not included in the list of 102 on applied parameters.

It said such cities may also be included. The Bench has, however, not set any deadline for the expansion.

The list of 102 currently consists of all major non-attainment cities including Delhi, Mumbai, Pune, Varanasi, Kanpur, Lucknow, Allahabad, Kolkata, Bengaluru, Chandigarh, Jaipur, Jammu, Patiala, Jalandhar, Ludhiana, Patna and Hyderabad among others.

The NGT order comes in a matter, which it took suo motu based on a TOI report, on air pollution in cities across the country under the National Clean Air Programme (NCAP).

The tribunal, in its Friday order, also focussed on issue of non-compliance where six defaulting states have, so far, not submitted their respective action plan to check different sources of air pollution and eventually bring the air quality to the level of prescribed norms.

Referring to non-compliance of its October 8, 2018 order, the tribunal directed chief secretaries of six states - Assam, Jharkhand, Maharashtra, Punjab, Uttarakhand and Nagaland - to submit their action plans by April 30 and warned them of penalty of Rs 1 crore each in case of failure to do so.

All the states were supposed to prepare and submit their action plans by December 31 last year and get it approved by the CPCB chairman on recommendations of a central committee by January 31, 2019. But, these six have not furnished their plans with respect to all of their non-attainment cities as per the list of 102.

"If such action plans are not furnished till April 30, the states will be liable to pay environment compensation of Rs 1 crore each. The states, where action plans are found to be deficient and deficiencies are not removed till April 30, will be liable to pay Rs 25 lakh each," said the tribunal.

Once the states submit their plans, the time-line for execution will be six months from the date of finalisation of action plan.

Such plans must include components like identification of source of air pollution and its apportionment, measures for strengthening of air quality monitoring system, steps to be taken to check different sources of pollution within specific time-lines and public awareness programmes.

So far, the CPCB has received action plans of 83 cities. While 46 of these submitted plans got the final approval, 11 others could not be approved. Action plans of 26 cities are currently being reviewed by the central committee comprising of Prashant Gargava, Member Secretary, CPCB, Mukesh Khare, Professor, IIT Delhi, and Mukesh Sharma, Professor, IIT Kanpur.

IIT KGP Students Win Asian Finals of APICS Competition

<https://timesofindia.indiatimes.com/home/education/news/iit-kgp-students-win-asian-finals-of-apics-competition/articleshow/68465633.cms>



A two-member student team from IIT KGP has adjudged winner of the APICS Supply Chain Case Competition for South and Western Asia.

The American Production and Inventory Control Society known as APICS is the world's leading professional body for end-to-end supply chain excellence. The Case Competition has two segments in Asia, the Singapore edition for East Asian and South East Asian countries and the Hyderabad edition for West Asian and South Asian countries.

The winning team comprising Rohan Sewani and Rohit Sar from IIT Kharagpur was given a case for a toy manufacturing company which has recently shifted to manufacturing electronic toys and had its market spread out globally.

The case defined the specifics of the production amounts and capacities of each process of the manufacturing unit and also the layout of the factory, inventory distribution, inventory cycles, warehouse costs, operational expenditures, transportation etc. It was mentioned that the client was

not performing very well in terms of demand fulfilment for the last two years and was not willing to invest any extra amounts for covering up the same.

Explaining why the solution proposed by the student team from IIT KGP was chosen the winner, Rohan Sewani, team member from the department of Industrial and Systems Engineering, IIT Kharagpur said, “We had given both, analytical and qualitative solutions based on layout restructuring, Work in Progress inventory cycle revision and elimination of external warehouses, decreasing the manpower and increasing Overall Equipment Effectiveness and yield. We showed major savings and recommended the use of the Internet of Things and Artificial Intelligence based Predictive & Preventive Maintenance based solutions to increase the Overall Equipment Effectiveness.”

The proposed solution from the IIT KGP team involved Material Flow Optimization, Inventory Optimization, Overall Equipment Effectiveness, and Material Yield. Finally, the case had to be presented as a business case to the board of directors’ and the complete solution was to be presented as a complete package of analytical solutions and savings, future recommendations and client psychology-based marketing.

The Regional Finals for West and South Asia had overall eight teams from India with management students from IIMs, IIT Delhi, IIT Bombay, NMIMS and Delhi University. The team From IIT Kharagpur was the only Indian team represented by undergraduate engineering students.

“The case was on a manufacturing facility layout restructuring problem. For undergraduate engineering students to achieve this feat in the Asian Regional Finals of APICS is significant in domains of operations management,” remarked Manoj Kumar Tiwari, teacher of department of Industrial and Systems Engineering and Dean, Planning and Coordination, IIT Kharagpur.

AICTE chairman calls for industry-academia linkage

<https://www.thehindu.com/news/national/karnataka/aicte-chairman-calls-for-industry-academia-linkage/article26562328.ece>



Karivrabha Deshikendra Shivayogishwara Swami, seer of Somanakatte Sri Kadasiddeshwara Mutt, Tiptur, being conferred with a honorary doctorate during the 99th convocation of the University of Mysore on Sunday.

He says this will help solve the issue of unemployability of graduates

Anil D. Sahasrabudhe, chairman of the All India Council of Technical Education (AICTE), called for a greater industry-academia linkage, besides boosting research and innovation in universities, to shore up the quality of education.

Delivering the 99th annual convocation address here on Sunday, Dr. Sahasrabudhe said colleges and universities need to take up a few important initiatives on priority to overcome the lacunae in the education system. He said there have been reports about the unemployability of graduates owing to the lack of soft skills like effective communication, team work, discipline, problem-solving ability, critical thinking, analytical abilities, professional, and ethical practices, among others.

To overcome this, academic institutions and the industry should have greater interaction and collaboration, he said and suggested that universities should develop sector-specific hub-and-spoke model.

This will help engage with industries to get internship for students, get on-the-job training for faculty in the industry for a semester, help appoint adjunct faculty from the industry, set up laboratories with industry support, involve the industry in curriculum development, and train students in soft skills.

He said universities are the places for generation of new knowledge, and for its assimilation, dissemination, and application.

Therefore, providing impetus to research and innovation in the educational ecosystem and carrying out inter-disciplinary socially relevant and industry-relevant projects are significant, said Dr. Sahasrabudhe.

“Universities can explore various avenues available, such as experiential learning for students, participation in the Unnat Bharat Abhiyan, adopting villages, and applying knowledge for solving local challenges,” he added.

The Union Ministry of Human Resource Development (MHRD) has set up an innovation cell in AICTE for engaging with colleges and universities, said Dr. Sahasrabudhe, pointing out that a new ranking system for universities and colleges, on the basis of innovation practices, was launched this year. He called for greater networking with top international universities for faculty and student exchange to harness one’s potential.

Pointing out that as centres for knowledge generation, universities should be available for students around-the-clock and cannot function like a government office from 10 a.m. to 5 p.m.

He emphasised the need for self and lifelong learning and pointed out that the MHRD and the AICTE were associated in building a MOOC (Massive Open Online Course) platform SWAYAM (Study Webs of Active-Learning for Young Aspiring Minds), which has more than 1,800 courses from all domains of knowledge and has 3 million students from India and other countries.

Karivrashabha Deshikendra Shivayogishwara Swami, seer of Somanakatte Sri Kadasiddeshwara Mutt, Nonavinakere, Tiptur, was conferred the honorary doctorate on the occasion while Mata Amritanandamayi, Chancellor of Amrita Vishwa Vidyapeetham, was conferred the same in absentia.

March 17

People-to-people Ties Between UAE, India Sees Fast Growth

<https://www.urdupoint.com/en/middle-east/people-to-people-ties-between-uae-india-sees-572683.html>

Catching up with the fast-paced and diverse growth in relations between the UAE and India, people-to-people ties between the two countries are picking up.

On Monday, an interactive session will be held at the prestigious Indian Institute of Technology, IIT, in New Delhi on the theme of 'flourishing relationship between the Republic of India and the United Arab Emirates'.

The IITs in several cities in India are among the most influential academic institutions in this country which have produced graduates and post-graduates who now occupy leadership positions in the global corporate world, especially in the United States and South East Asia. Many of India's leaders across the board, including the chief ministers of Delhi and Goa and the titans who run leading Indian businesses, are an alumnus of these prestigious institutes.

Monday's interactive session at the IIT, Delhi, has been put together by the C.D. Foundation, a leading non-profit organisation in India.

This meeting comes close on the heels of a two-day international conference in Mumbai titled, 'Connect Gulf: Culture, Commerce and Polity'. The conference, organised by Mumbai University's Department of Civics and politics, was attended by leading Indian academics specialising in the Gulf, experts from the media who have been writing on the Gulf for several decades, retired Indian Ambassadors who have served in the Arab world and research scholars on the region.

Several academics and experts from several Gulf states, the United Kingdom and China attended the conference.

Delivering the inaugural address at the conference held at the Research Centre of the University's Department of Civics and Politics, Shajahan Madampatt, Adviser, National Media Council of the UAE, said that in India's relations with the Gulf, Track II engagement preceded Track I.

"The Gulf needed workers, Indians needed jobs. But now governments on both sides are fast catching up on relations and these have become diverse," he said. He referred to the long history of contacts between India and the Gulf and pointed to the Dilmun civilisation which was on the route between Mesopotamia and the Indus Valley civilisation.

He spoke in great detail at an academic session and panel discussion on India's connections with the Gulf, dwelling in particular on the thriving present-day relations between the UAE and India, which continue to expand.

Shortly before the Mumbai event, a two-day conference to address the root causes of radicalisation and terrorism analysed cooperation between the UAE and India against these twin dangers to civilised society and in providing security.

This conference in New Delhi, organised by the Policy Perspectives Foundation here, was addressed, among others, by Syed Asif Ibrahim, who was Special Envoy of Indian Prime Minister Narendra Modi on countering terrorism and extremism and G. Parthasarathy, who was India's High Commissioner to Australia, Cyprus and Pakistan and Ambassador to Myanmar.

The uptick in people-to-people contacts has also seen increasing and active participation by think tankers and strategic analysts from the UAE in signature Indian conferences such as the annual Raisina Dialogue organised by the New Delhi-based Observer Research Foundation and the highly rated West Asia conference of the Indian government's think tank, the Institute for Defence Studies and Analysis.

March 16

How a tactile book helps visually impaired women deal with their period

<https://www.thehindu.com/society/how-a-tactile-book-helps-visually-impaired-women-deal-with-their-period/article26544937.ece>



A menstrual hygiene bracelet

Menstrual hygiene bracelets and a tactile apron on the female reproductive system helps girls understand puberty

When 13-year-old Reema's mother told her to change her clothes, she was confused. She had bathed and worn a freshly washed dress just moments ago. When her mother told her that her clothes had blood stains, Reema was only more confused. She could not see the stains, being visually impaired, and she could not understand why she should be bleeding when she had not injured

herself in any way. Her mother tried to explain to her that this was a monthly occurrence in a female body, but it didn't make things any clearer for Reema.

Reema is not alone in her confusion. Of India's estimated 50, 32,463 people with visual disabilities, 23, 93,947 are women. If the silence and stigma around menstruation makes it hard for women with sight to manage their periods, it becomes far more challenging for the visually impaired. They are often pressured by their families to have their uterus removed so that they stop menstruating.

But now a tactile book in Hindi and English on menstrual hygiene management is helping these women visualise and understand their bodies and the physical changes that happen during puberty. There is also a video for the hearing impaired explaining the biology behind menstruation and telling them how to manage their period with dignity. This material has been developed by the Water Supply and Sanitation Collaborative Council (WSSCC) in collaboration with IIT Delhi, the Centre of Excellence in Tactile Graphics, Saksham Trust, and the Noida Deaf Society.

An electronic and an audio version of the tactile book *As We Grow Up* is available for those who cannot read Braille. Most importantly, this innovative kit, which was developed last year, came into being after wide consultations with visually- and hearing-impaired women.

"I wanted to ensure that all women and girls would be able to participate in and benefit from breaking the silence around menstruation and menstrual hygiene. This included working with the blind, deaf, those with physical and mental disabilities, and transmen. The hope is that it will replace the shame and silence with information, confidence and pride," says Archana Patkar, former head of policy, WSSCC.

Better prepared

The tool kit includes specially designed menstrual hygiene bracelets and a tactile apron on the female reproductive system that trainers can use in schools to help visually impaired girls understand puberty. This has proved to be a big boon especially for adolescent girls from marginalised communities whose parents are uneducated.

For Rita Rathaur, workshops on menstrual hygiene conducted by WSSCC trainers has reduced her stress and anxiety. Having studied only till Class II, explaining why women menstruate has been difficult, since her own understanding of the process is poor. She took her 14-year-old twin daughters to a workshop at Saksham School in Noida, which has students with blindness and multiple disabilities. Ridhima and Anupama have low vision. "Ridhima has just started her periods. She will learn why this is happening and Anupama will be better prepared when she gets hers," says Rathaur.

The kits and workshops have also helped teachers shed their inhibitions while talking about periods. According to Anita Kumari, a teacher at Saksham, talking about the male and female reproductive organs was embarrassing for many of them. "Now with the Braille book and tactile apron, we don't feel any shame. It has given us *azadi* (freedom) to talk about it," she says.

WSSCC technical officer Kamini Prakash is elated by the positive response emerging from such workshops. "The endorsement by the ministries of water and sanitation and social welfare has

boosted its reach. It is now being used to train students and facilitators working with hearing and visually impaired people across the country, including in government schools," says Prakash.

IIT Kharagpur to Adopt Amazon Web Services Educate Programme to Accelerate Cloud Learning and AI Skills

<https://www.news18.com/news/business/iit-kharagpur-to-adopt-amazon-web-services-educate-programme-to-accelerate-cloud-learning-and-ai-skills-2068489.html>

As part of AWS Educate, the students will gain access to 12 Cloud Career Pathways covering topics that are in demand by employers, such as machine learning, cybersecurity, and software development, each with over 30 hours of content.

The Indian Institute of Technology Kharagpur will adopt Amazon Web Services (AWS) Educate programme to help students gain cloud computing skills including hands-on experience in artificial intelligence (AI), a top official of the institute has said.

"We are happy to introduce AWS Educate programme to provide AWS Cloud Computing experience and AI-enablement for all our students, irrespective of their branch of study. We look forward to some really innovative solution ideas coming out of this," Director IIT KGP Prof P P Chakrabarti said Friday.

The AWS Educate programme is Amazon's global initiative to provide students and educators with resources needed to accelerate cloud-related learning and to help power the workforce of tomorrow. The programme offers a robust set of no-cost tools, resources and AWS Promotional Credits for students and educators to boost their cloud skills and experience, an IIT KGP statement said.

"AWS Educate is designed to impart skill to students with the latest advancements in cloud computing technology and provide them with an environment to experiment on AWS Cloud, without making them worried about cost or access challenges," the statement quoted Amazon Internet Services Private Limited, president, Rahul Sharma as saying.

"We are pleased to work with IIT Kharagpur in their journey of higher learning, and to help them nurture new talent for a cloud-ready workforce," he was quoted in the statement.

As part of AWS Educate, the students will gain access to 12 Cloud Career Pathways covering topics that are in demand by employers, such as machine learning, cybersecurity, and software development, each with over 30 hours of content.

Upon completion, learners are eligible to receive an AWS Educate Certificate of Completion or an AWS Educate Badge.

IIT Roorkee signs MoU with ISRO for space technology cell

<https://www.timesnownews.com/education/article/iit-roorkee-signs-mou-with-isro-for-space-technology-cell/383584>

Bengaluru-based ISRO has been undertaking several student outreach programmes over the past few months in order to develop scientific temper among the country's youth.

The Indian Institute of Technology (IIT) Roorkee in Uttarakhand on Friday said it tied up with the Indian Space Research Organisation (ISRO) to set up a Space Technology Cell at its campus. "The ISRO-IIT Roorkee Space Technology Cell shall pursue advanced research in the areas of relevance to the future technological and programmatic needs of the Indian space programme," a statement from IIT Roorkee said.

The cell shall ensure to maximise the use of research potential, infrastructure, expertise and experience that exist in ISRO and IIT Roorkee, the statement said. The institute will be providing the infrastructure and administrative support in setting up of the cell.

The research facility will consist of faculty members, visiting scientists, experts, research personnel, technical, administrative and support staff.

Bengaluru-based ISRO has been undertaking several student outreach programmes over the past few months in order to develop scientific temper among the country's youth.

India allows Afghanistan students to use Swayam portal

<https://www.deccanchronicle.com/nation/current-affairs/160319/india-allows-afghanistan-students-to-use-swayam-portal.html>

Swayam, an online education platform, is developed by India.



As per the MoU, the MHRD will impart training to the faculty and students in the educational Institutions in Afghanistan for using the Swayam platform and it will also build capacity for e-learning among the faculty members.

A new memorandum of understanding (MoU) between ministry of human resource development (MHRD), India, and ministry of higher education, Afghanistan, was signed on Friday allowing students and faculty members from the neighbouring country to study Massive Open Online Courses (MOOCs) available in Swayam platform.

Swayam, an online education platform, is developed by India.

As per the MoU, the MHRD will impart training to the faculty and students in the educational Institutions in Afghanistan for using the Swayam platform and it will also build capacity for e-learning among the faculty members.

It will also assist uploading and publishing of existing courses developed by Afghan educational institutions on Swayam platform. It would also help the higher education ministry of Afghanistan to set up its own MOOC platform.

Speaking at the event, R.Subrahmanyam, secretary, higher education, MHRD said, “The ties between India and Afghanistan would grow further with this collaboration. It would expose them to the latest technology courses and also upskill them in areas of their interest.”

M. Homayoun Qayoumi, senior advisor to the President of Afghanistan and acting finance minister, highlighted the impact of education in the progress of every country and this collaboration would help in providing better education facilities to Afghan students.

Among the other initiatives envisaged by this MoU is to provide access to the Higher Educational Institutions of Afghanistan of various Indian facilities such as the National Digital Library of India (NDLI) and virtual labs.

Further, it would also develop joint educational programmes between higher educational institutions of India and Afghanistan, sharing of the curriculum.