Highlights of the Week@IITD

Pan IIT Conclave 2019: Global Thinkers Discuss Artificial Intelligence, Its Future in India

January 20, 2018 https://www.ndtv.com/education/pan-iit-conclave-2019-artificial-intelligence-its-future-in-india-1980397

This year the conclave is also hosting the first Pan IIT AI Hackathon 2019 to promote AI and ML among the wider community of young software and AI professionals.

Pan IIT Conclave 2019: Artificial Intelligence, Its Future in India

The two day Pan IIT Conclave 2019, on "Artificial Intelligence: What does the future hold for India?" was inaugurated by Vijay Goel, Minister of State for Statistics and Programme Implementation on January 19. The conclave is being organized by PAN IIT Alumni India (PIAI), the nodal organization of alumni of all the IITs, at IIT Delhi. The recommendations from the conclave will be actioned along academia, government, industry and startup partners by the PAN IIT AI forum in the coming months.

K Ananth Krishnan, Chief Technology Officer, TCS, the key note speaker, shared his vision for AI's future in India while Vijay Goel discussed about reinforcing the application of Artificial Intelligence and Machine Learning across industries to propel India to be future ready.

On the first day, there were gripping discussions in various sessions: AI for Social Good, AI for Education, Future of Work, AI in Manufacturing, Ethics, Privacy and Security of AI Systems, Security of AI Systems and AI for Agriculture.

While riveting thoughts emphasized on the importance and contribution of AI in the future of India, there were ideas shared to address the potential challenges.

Among the dignitaries were Dr. P Anandan, Chief Executive Officer, Wadhwani AI, Ajay Sawhney, Secretary, Ministry of Electronics and Information technology, G. S. Raghavan, Professor, IIIT-Bangalore, Sudha Ram, Professor, CSE and IS, University of Arizona, Anand Rangarajan, Director, Google, Surjit Bhalla, Member, Economic Advisory Council to the Prime Minister of India, Dr. Aloknath De, Corporate Vice President and Chief Technology Officer, Samsung, Dr Partha Pratim Chakraborty, Professor - Director, IIT Kharagpur, Dr Satyam Priyadarshy, Shyam Divan, Sr Advocate, Supreme Court, Professor T V Prabhakar, CSE, IITK and Sriram Raghavan, VP, IBM Research & CTO IBM India/South Asia.

Established in 2006, this year the Conclave is also hosting the first Pan IIT AI Hackathon 2019 to promote AI and ML among the wider community of young software and AI professionals.

Janaury 25

IIT-Bombay placement: Rs 32.4 lakh top package for MBA graduates
https://indianexpress.com/article/education/iit-bombay-placement-rs-32-4-lakh-top-package-for-mba-graduates-5554289/

Last year, students secured an average CTC of Rs 19.06 lakh, whereas this year, it crossed Rs 20 lakh, a statement issued by IIT-Bombay said on Thursday.

As many as 38 companies made 112 offers, the statement added.

WHILE THE highest package secured by MBA students in the final placement at Shailesh J Mehta School of Management (SJMSOM), IIT Bombay, remained the same as last year (Rs 32.4 lakh), the average CTC has seen an increase this year. Last year, students secured an average CTC of Rs 19.06 lakh, whereas this year, it crossed Rs 20 lakh, a statement issued by IIT-Bombay said on Thursday.

All 109 MBA students of the 2019 batch were placed during the final placement drive, which took place over three days in December last year. As many as 38 companies made 112 offers, the statement added. Last year, 112 offers were made to a batch of 107 students.

In addition to legacy recruiters, the SJMSOM also witnessed new recruiters such as OYO, HSBC and Tata Global Beverages, among others.

Head of SJMSOM, Professor S Bhargava, said: "We have again succeeded in providing the industry with talented students in a plethora of roles and functions, and strengthening of long lasting relationships with our legacy recruiters, along with an influx of new recruiters, which resulted in excellent packages for students. We have rapidly advanced in our pursuit of excellence with the same being reflected in the stupendous growth of average packages. These numbers are a testament to the robust pedagogy followed by SJMSOM."

Last year, on an average, the top 20 per cent of the students had received offers worth Rs 25.24 lakh per annum, while the figure for the top 50 per cent of the students was Rs 22.59 lakh.

IIT Ropar, Taiwan varsity to set up centre for AI research

https://timesofindia.indiatimes.com/city/chandigarh/iit-ropar-taiwan-varsity-to-set-up-centre-for-ai-research/articleshow/67680336.cms

Indian Institute of Technology (IIT) Ropar is going to set up a research centre for artificial intelligence and machine learning in collaboration with National Chung Cheng University, Taiwan. The center, first in the region, will be funded by the Ministry of Science and Technology of Taiwan with aim to promote bilateral cooperation between the two institutes.

The focus of the center will be to promote student and faculty exchanges, joint project proposals, development of curriculum for AI-related programmes and facilitate industry-academia interactions. The center aims to be a unique platform for exchange of critical knowledge in these areas and is seen as a major activity initiated by the office of international relations at IIT Ropar. A delegation of the university visited IIT Ropar to sign a MoU in this regard.

IIT Ropar sirector Prof S K Das laid emphasis on the philosophy behind international collaborations at IIT Ropar. He also highlighted the upcoming academic programmes in mathematical computing and AI as well as microelectronics where the two universities can collaborate. The visitors interacted with several key officials at Ropar including the dean of research and heads of department of

computer science and engineering, biomedical engineering, mathematics, physics, chemistry, humanities and social sciences among others.

January 24

Three tech missions on solar, water treatment to be launched at IIT Madras

https://www.business-standard.com/article/news-ians/three-tech-missions-on-solar-water-treatment-to-be-launched-at-iit-madras-119012401350_1.html

Harsh Vardhan, Union Minister for Science and Technology, Earth Sciences and Environment, Forests and Climate Change will launch three technology mission centres at IIT Madras on Friday to address various issues around solar energy and water treatment, a government statement said on Thursday.

"All the three centres will be set up by the Department of Science and Technology (DST)," Vardhan's office said in a release.

The first, it said, is the DST-IIT Madras Solar Energy Harnessing Centre.

"The centre will focus on a wide range of research and technology development activities such as silicon solar cells that promise high efficiency and are suited for Indian conditions. It is likely to be a true change agent in the energy landscape of India. The consortium will be duly poised to address the sustainability requirements in the spirit of Make in India," the release said.

Scientists from IIT Madras, IIT Guwahati, Anna University, ICT-Mumbai, Bharat Heavy Electricals Limited (BHEL) and KGDS Renewable Energy Private Limited will be engaged in the activities of the centre.

Second in line is the DST-IIT Madras Water Innovation Centre for sustainable treatment, reuse and management which has been established with the aim to undertake synchronized research and training programmes on various issues related to wastewater management, water treatment, sensor development, stormwater management and distribution and collection systems.

"This multi-institutional virtual centre will be looking into a sustainable approach for water resources protection and augmentation through wastewater treatment and reuse and stormwater management.

"The centre will provide a unique opportunity for the various groups in different premier organizations working in the area of wastewater management, water treatment, sensor development and stormwater management to collaborate and work in synergized manner to ensure adequate and safe sources of drinking water for rural and urban India and process water for highly polluting industries, through research, technology development and capacity building," the Science and Technology Ministry said.

The third one would be the test bed on solar thermal desalination solutions which are being established by IIT Madras and KGDS as solution providers in Naripaaiyur, Ramanathapuram district,

Tamil Nadu with the aim to deliver customized technological solutions to address prevalent water challenges in the arid coastal villages located on the shores of the Bay of Bengal.

IIT Kharagpur and Japan's AOTS sign MoU for research centre, to focus on professional development of students

https://www.newsnation.in/education/university-and-college/iit-kharagpur-and-japans-aots-sign-mou-for-research-centre-to-focus-on-professional-development-of-students-article-212350.html

As per the MoU signed on January 21, joint academic and business activities will be undertaken, including events to promote education, internships and employment for students.

Much to students' delight, IIT Kharagpur (IIT KGP) and Japan's Association for Overseas Technical Cooperation and Sustainable Partnerships (AOTS) have signed a MoU to explore opportunities for a research centre that will facilitate collaborative projects. The two organisations shall focus on "state-of-the-art joint certification courses in the domains of technology and management to be co-taught by faculty/experts in both countries, including a visit to the host institutions," according to an IIT KGP statement released in Kolkata on Thursday. The partnership will have a strong focus on the professional development of students, it added.

Japan is a global leader in domains such as urban science and infrastructure, advanced manufacturing, high-speed railways, semiconductors, while India has emerged as domain experts in information technology, data science, artificial intelligence and the startup culture, IIT KGP Director PP Chakrabarti said.

The proposed centre at IIT KGP will facilitate collaborative projects and training modules in these areas in accordance to the work culture of India and Japan, which have their unique styles of management and leadership, he said.

As per the MoU signed on January 21, joint academic and business activities will be undertaken, including events to promote education, internships and employment for students. These activities, spearheaded by IIT KGP, will be open to other engineering institutions for participation.

Deputy Director of IIT KGP SK Bhattacharyya said that maintenance and health monitoring of infrastructural facilities based on new technological developments are of paramount importance.

"Japan's expertise in this area along with sensor technologies will be extremely beneficial in offering short courses jointly by IIT Kharagpur and Japanese organisations," Bhattacharyya added.

IIT Ropar launches Android App to help visually impaired recognise currency

https://www.dailypioneer.com/2019/state-editions/iit-ropar-launches-android-app-to-help-visually-impaired-recognise-currency.html

It is often difficult for the visually impaired people to identify the denomination of the currency note. To assist them easily determine denomination of INR currency notes, a team from IIT Ropar, Punjab has developed an Android App "Roshni", using image processing and analytics.

"The user has to bring the currency note in front of phone camera and the App would provide audio notification intimating the currency note' denomination to the user. The Roshni is the first Android App that works successfully with new INR currency notes also and it works well in broad range of light conditions and holding angles," the IIT said in a statement on Wednesday.

The team prepared a rich dataset of more than 13000 images of INR currency notes under varied real-world conditions. The team consists of Dr. Puneet Goyal, PhD Scholars - Mandhatya Singh and Joohi Chauhan, and a student R. Ram.

The IPSA (Image processing, Security & Analytics) Lab members visited the Chandigarh blind school recently and performed the App testing there. The App received very favorable feedback from the students and faculty members of this School.

"Roshni is turning out to be very beneficial for the visually impaired in easily recognizing INR currency and performing money transactions confidently and smoothly," said Dr. Goyal, Asst. Prof, IIT Ropar.

January 23

Removing upper age limit will not affect JEE-MAIN, MHRD clarifies

https://www.edexlive.com/news/2019/jan/23/sc-scrapping-of-upper-age-limit-for-jee-will-not-affect-jee-main-mhrd-says-5110.html

As students over 25 are anyway sitting for JEE-Main technically, provided they follow the three-attempt norm, it will not lead to any changes in the registration process

Government officials said there is a three-attempt limit on the JEE-Main, which is the first step to qualify for the JEE-Advanced

The Supreme Court's decision to remove the upper age limit for the Joint Entrance Examination (JEE)-Advanced will have no bearing on the JEE-Main, the Union Human Resources Development Ministry has said.

Government officials said there is a three-attempt limit on the JEE-Main, which is the first step to qualify for the JEE-Advanced, and that will continue. The JEE-Advanced is the entrance test for the prestigious IITs.

In an interim order issued on Monday in the case of one A Balasubramanian, the court directed the government and the National Testing Agency – which is conducting the JEE-Main this year – to let

candidates above the age of 25 appear for the JEE-Main and JEE-Advanced in 2019.

Officials, however, said the upper age limit was fixed only for JEE-Advanced and not for JEE-Main, which has a limit of three attempts – only in three consecutive years.

"As students over 25 are anyway sitting for JEE-Main technically, provided they follow the three-attempt norm, it will not lead to any changes in the registration process," an official in the higher education department said.

The top half of the candidates who qualify in the JEE-Main are eligible for the JEE-Advanced, and compete for the about-14,000 IIT seats on offer.

The JEE-Main is being organised in two phases this year — one of which was held in January and its results have been declared. Registrations for the second phase began on February 8.

Poor children from general category will also be able to get into IIMs, IITs: PM Modi

https://www.business-standard.com/multimedia/video-gallery/general/poor-children-from-general-category-will-also-be-able-to-get-into-iims-iits-pm-modi-78014.htm

While interacting with the BJP workers from Maharashtra on Wednesday, Prime Minister Narendra Modi said, "I want to make it clear there won't be any effect on the reservation already provided to different categories.

Now the poor children from General Category will also be able to get into IIMs and IITs".

IIT- Hyderabad researcher leads pollution study

https://www.deccanchronicle.com/nation/current-affairs/230119/iit-hyderabad-researcher-leads-pollution-study.html

The researcher is leading the air pollution governance study on Indian cities.

The cities chosen for the air pollution study are Beijing, Bangalore, Houston, Philadelphia, New York City, Albany, Delhi, Hyderabad, Chennai, Pune and Los Angeles.

A researcher with IIT- Hyderabad, Dr Aalok Khandekar, is part of a global initiative aimed at understanding and governing air pollution.

The researcher is leading the air pollution governance study on Indian cities in the initiative funded by the US National Science Foundation and Azim Premji Foundation.

The cities chosen for the air pollution study are Beijing, Bangalore, Houston, Philadelphia, New York City, Albany, Delhi, Hyderabad, Chennai, Pune and Los Angeles.

Explaining the aim of the study, Dr Khandekar said, "We hope to characterise a city's air pollution governance style as an effect of the ways different communities involved in the city (local and beyond, including city, state and national government actors, residents, environmental activists, scientists in different disciplines) come together, prioritising some things while discounting others. Our hope is that comparative perspective on air pollution governance styles will advance both fundamental understanding of environmental governance and practical work on the ground."

He further adds, "We want to understand how actors in different communities identify problems, produce and use relevant data, interpret and think creatively about that data, and are moved to action."

IIT-Madras offers AI-based tech to help army predict stone pelting in Jammu and Kashmir

https://www.hindustantimes.com/india-news/iit-madras-offers-ai-based-tech-to-help-army-predict-stone-pelting-in-jammu-and-kashmir/story-nFpvW68m42WNLXmu2AnIBN.html

A group of students of the Indian Institute of Technology-Madras has developed an artificial intelligence-based technology for predicting crowd behaviour and offered it to the army for possible use in J&K to deal with stone pelters who attack security forces.

Stone pelters have interfered in army operations in Kashmir, seeking to distract their attention to help militant gunmen escape.

A group of students of the Indian Institute of Technology (IIT) - Madras, has developed an artificial intelligence (AI)-based technology for predicting crowd behaviour and offered it to the Indian Army for possible use in Jammu and Kashmir to deal with stone pelters who attack security forces, two officials said on condition of anonymity.

"Using action recognition algorithms, crowd density maps and analysis of live images coming in from CCTV cameras, it is possible to predict abnormal events including stone pelting. We think it could help the Indian Army that faces such attacks regularly in J&K," said S Raghav Vaidyanathan, student executive head, Centre for Innovation, IIT-Madras.

Stone pelters have interfered in army operations in Kashmir, seeking to distract their attention to help militant gunmen escape.

Four IIT students involved in the crowd analysis project recently travelled to Delhi from Chennai to take part in the Army Technology Seminar-2019, an army initiative that seeks to bring the military, academia and industry on a common platform to find indigenous solutions to the force's requirements.

The Army Design Bureau, inaugurated in August 2016, is the force behind the initiative. It has been tasked with promoting research and development and acting as a bridge between the army and the private sector to meet the army's requirements.

"The academia and industry keep coming up with innovations. Some of these have already been adopted and others are being considered or tested. Out of the 130 problem statements identified by us, we have received responses to about 100," said an officials cited above.

The crowd analysis project seems to be interesting but how exactly it can be employed on the ground and how effective it could be needs to be examined, said a colonel who attended the seminar. Raghav said a team of army officers is likely to visit Chennai soon to figure out what solutions the IIT's Centre for Innovation had to offer the force.

Former army vice-chief Lieutenant General AS Lamba (retd) said innovative solutions such as AI-assisted prediction of crowd behaviour could be tried out in J&K where the situation is most difficult. "Such innovations could lead to a good solution in the long term."

Other IITs have also come up with solutions to the army's problems. For instance, IIT-Delhi has developed hygiene products that will allow soldiers deployed on the Siachen glacier to clean themselves properly.

IIT-Madras startup uses effluents to generate power

https://timesofindia.indiatimes.com/city/chennai/iit-m-startup-uses-effluents-to-generate-power/articleshow/67647972.cms

The threat of effluent dumping by tanneries and dyeing units could into an opportunity if this IIT-M alumni's startup has its way. JSP Enviro, the company, uses microbial fuel cell technology that uses micro-organisms to break down chemicals in effluents and produce electricity in the process.

JSP Enviro has set up a research and development team at IIT-M to create new technologies for water treatment. It which ventured into the clean tech business in 2016, and is involved in treating and recycling industrial waste water, restoration of polluted water bodies, landscaping and beautification projects, besides treating waste water for reuse. It is now restoring a 30-acre lake on the Integral Coach Factory (ICF) premises in Chennai.

The company, founded by 2017-batch biotechnology alumnus V T Fidal Kumar has bagged funding from 'EIT Climate-KIC', Europe's largest climate-based accelerator by winning the second place at 'Climate Launchpad', a tech meet held in Scotland in November 2018. It won a prize money of 5,000.

January 22

JEE Advanced 2019: Age barrier to appear for IIT JEE removed, updates soon on jeeadv.ac.in

https://www.timesnownews.com/education/article/jee-advanced-2019-age-barrier-to-appear-for-iit-jee-removed-updates-soon-on-jeeadv-ac-in/351702

Supreme Court has removed the age limit for IIT entrance examination - JEE Advanced. More updates soon regarding the implication of the hearing. The provisional permission has been given.

JEE Advanced 2019 Update: In a move that is bound to bring joy to thousands of engineering aspirants in India, the Supreme Court has ordered the removal of Age limit for the IIT JEE examination or the Joint Entrance Examination, JEE Advanced 2019. As per the latest update, candidates of all ages who were earlier not permitted to appear for the examination may now do so. As to how the order would be implemented and from which year, the clarity is still awaited.

JEE Advanced is the engineering entrance test for admission to the prestigious Indian Institutes of Technology, IITs in the country. Candidates have to qualify the JEE Main examnation in order to be eligible for JEE Advanced 2019. The JEE Main 2019 Janaury Result were recently declared by National Testing Agency. JEE Advanced 2019 examination is scheduled for May 19, 2019 and would be conducted by IIT Roorkee this year.

The exact ramifications of the judgement is not known at present. It would be important to note that the students have to first qualify the JEE Main examination in order to be eligible for JEE Advanced. With the order, the effect would also lead to removing the age limit on JEE Main examination. Since one attempt of JEE Main 2019 examination has already been conducted by NTA for the year, how would age limit removed is still to be seen.

All the students are advised to keep a close check on the official website of JEE Advanced which is jeeadv.ac.in for clarification on the order. The exact implication of the order and how it would be implemented would be provided by IITs soon. More updates on the order and the extent of its implementation would also be available on this page.

New quota ache for IITs, IIMs
https://www.telegraphindia.com/india/new-quota-ache-for-iits-iims/cid/1682350

Institutes mull seeking exemption from economic quota this year

The IITs and the IIMs are likely to seek exemption from the economic quota for the coming academic session, the tech institutes citing inadequate infrastructure and the B-schools flagging the absence of an "economically weaker section" box on the CAT application form.

The human resource development ministry has asked all the central educational institutions to start implementing the 10 per cent economic quota from the 2019-20 session, and to increase their seats to accommodate it.

But one IIT director said that since the tech institutes were residential campuses, increasing the college seats would demand a corresponding increase in hostel seats, which is difficult to do at short notice.

Several IIT directors sought solace in an apparent loophole in the government order, which suggested the new quota "shall not reduce the number and percentage of reservation provided for (the) Scheduled Castes, Scheduled Tribes and Other Backward Classes categories".

"The ministry order does not say that the number of unreserved seats cannot be reduced. If the unreserved seats can be reduced, there's no need to increase seats — (some of) the existing unreserved seats can be diverted for the quota," an IIT director said.

Three IIT directors said they would write to the ministry asking whether they could implement the economic quota without increasing the seats.

Gautam Biswas, IIT Guwahati director, however, said that if the ministry insisted, the institutes would have to increase their seats and accommodate the extra students in the existing hostels.

"Being government institutions, we have to implement the reservation policy," Biswas said.

Also, there's little clarity about infrastructure funding, which has over the past year shifted from grants to loans, disbursed on the basis of the institutes' ability to repay the money.

HRD minister Prakash JavadekarThe Telegraph file picture

The Higher Education Funding Agency has sanctioned loans of Rs 30,000 crore to nearly 50 central educational institutions in the past year.

"Many IITs had got their loan sanctioned before the economic quota came. To implement the new quota, we have to enhance the infrastructure. It's not clear who will fund that," an IIT Delhi official said.

Two IIM professors said that implementing the economic quota from the coming session would be near impossible. The Common Admission Test, which helps determine admission to the master's or postgraduate diploma courses in management, has been conducted without any mention of the economic quota.

"The CAT application form had no 'economically weaker section' box for the candidates to tick. The results were declared on January 5 before the quota was announced," he said.

The director of an Indian Institute of Information Technology too highlighted that the JEE Main, conducted by the National Testing Agency for admission to BTech courses, did not provide the candidates with an opportunity to state their eligibility for the economic quota.

However, the JEE Main will be conducted twice from this year. The first round was held earlier this month and the results were announced on Saturday. The second round will be held in April. Candidates will be ranked on the basis of whichever of the two exams they perform better in.

National Testing Agency sources said the economic quota option might be introduced in the application form for the April exam, for which the filling of forms will start in the first week of February.

Those who don't want to take the April test may be given the option by email or text message to choose the economic quota option if they want.

Research fellowship hike likely to be notified by February

https://www.thehindu.com/news/national/research-fellowship-hike-likely-to-be-notified-by-february/article26063582.ece

The stipends for the fellowship were last revised in 2014.

Students seeking 80% hike in stipends

With hundreds of student-researchers in several institutions across the country picketing for a hike in fellowships, two senior officials said that a decision should be out by the first week of February and the hikes could range from 25-50%.

On January 16 about 2,000 students and researchers, including from the Indian Institutes of Technology (IITs), the labs of the Council of Scientific & Industrial Research (CSIR) and several universities converged for a protest in Delhi. About 700 of them were briefly detained by the Delhi Police, as The Hindu has previously reported.

The students are gunning for at least an 80% hike in the research stipends given to those pursuing their doctoral degrees.

"These are legitimate demands and the matter is being deliberated in the finance ministry. Hopefully, it should be announced in a day or two," said Shekhar Mande, Director-General, CSIR. The CSIR and the University Grants Commission have the largest outlay towards disbursing fellowships.

Another scientist, who was privy to the proceedings of the meeting, said the hike was likely to be announced "before the Budget/Vote-on-Account (Feb 1)." and that it would be above the norm. "It could be from 25-50% but not an 80-100% hike as demands were being made. Currently, finance advisors of various ministries are examining the required budgetary increases," the scientist said.

Typically these stipends are significantly revised once in four years — the last being in 2014 — and a committee of scientists had recommended an increase after a meeting last December.

Paltry sum

Inspite of being a leading scientific power in terms of research publications, India spends about 0.7% of its GDP on research and development, which is much lower than countries of comparable scientific prowess.

The civilian science ministries were alloted ₹12,322 crore in February 2018, a hike of approximately 10% from the last year.

Aalok Khandekar, IITH researcher is coordinating an air pollution governance study on Indian cities

https://www.edexlive.com/news/2019/jan/22/aalok-khandekar-iith-researcher-is-coordinating-an-air-pollution-governance-study-on-indian-cities-5090.html

The study has now been expanded to include four more Indian cities including Delhi, Hyderabad, Chennai, and Pune besides Los Angeles as well

The '6+ Cities Study' aims to characterize distinctive styles of environmental health and risk governance at the city scale.

Indian Institute of Technology (IIT) Hyderabad Researcher Dr Aalok Khandekar is coordinating an 'Air Pollution Governance Across Cities Study' (known as the 6+ Cities Study) to characterize how coordination between 'understanding' and 'governing' air pollution is happening in different cities.

It also supports comparative insight and cross-city dialogue. Originally, there were six cities in the study with research groups in Beijing, Bangalore, Houston, Philadelphia, New York City, and Albany, funded by the US.

National Science Foundation, a US Government agency that supports fundamental research and education in all the non-medical fields of science and engineering.

The study has now been expanded to include four more Indian cities including Delhi, Hyderabad, Chennai, and Pune besides Los Angeles as well.

Research in India is being funded by the Azim Premji Foundation, India, an IIT-Hyderabad statement here said on Tuesday.

Research groups based in each city, as well as researchers, focused on themes across cities, are coordinated out of the University of California Irvine, Department of Anthropology by Professors Kim Fortun and Mike Fortun.

Dr Aalok Khandekar, Assistant Professor of Anthropology/Sociology, Department of Liberal Arts, IIT Hyderabad, is coordinating the Research in India.

Speaking about the importance of this study and its outcomes, Dr Aalok said, "We want to understand how actors in different communities identify problems, produce and use relevant data, interpret and think creatively about that data, and are moved to action."

Further, Dr Aalok added, "We hope to characterize a city's air pollution governance style as an effect of the ways different communities involved in the city (local and beyond, including city, state, and national government actors, residents, environmental activists, scientists in different disciplines) come together, prioritizing some things while discounting others. Our hope is that comparative perspective on air pollution governance styles will advance both fundamental understanding of environmental governance and practical work on the ground."

The '6+ Cities Study' aims to characterize distinctive styles of environmental health and risk governance at the city scale.

Through interviews, observation of public events, and analysis of media, government, non-governmental organisations and scientific reports, the study team is examining different stakeholder roles and perspectives, links between policy domains (especially environment, transportation, health, and education), and links across scale (urban, state, national, and international).

'We need to chart our own path to stay safe and protect our data'

https://timesofindia.indiatimes.com/home/education/news/we-need-to-chart-our-own-path-to-stay-safe-and-protect-our-data/articleshow/67639217.cms

Cybersecurity professionals can cater to engineering and R&D, says academic Debdeep Mukhopadhyay

With cyber security challenges on a rise in India, the country must be cyber prepared, claim experts. The need for a dedicated cyber security law in the country apart from cyber security disclosure norms has precipitated the need for skilled cybersecurity professionals.

According to the cybersecurity report under the Cisco 2018 Asia-Pacific Security Capabilities Benchmark, India's cybersecurity threats are the highest in the Asia-Pacific region with over 500,000 alerts daily of which around 39% of the alerts remain unattended due to lack of skilled manpower.

"Security is of paramount importance in this digitally connected world. With the advent of Internet-of-Things (IoT), it is envisaged that by 2020 around 50 billion devices would be connected. While new technologies such as IoT and Cloud computing provide several opportunities, they also bring in several threats to information security," says Debdeep Mukhopadhyay, professor, department of Computer Science and Engineering, Indian Institute of Technology Kharagpur (IIT-K) which was adjudged the winner of the DSCI Excellence Award for Cyber Security Education in the corporate segment at the NASSCOM-DSCI Annual Information Security Summit 2018.

Talking about government initiatives through efforts like ISEA (Information Security Education Awareness) to create the much-needed manpower in cybersecurity, Debdeep says, "Rather than policing, a more tenable solution would be through awareness and adopting proper security measures, which such programmes try to do. The attack surface is often a combination of social engineering and vulnerabilities in security solution, so making mass awareness is of great need. We have to provide more value to our PhDs and treat them at par with the best in the world, only then can we start developing indigenous technology, which is a must in this domain."

Career options

Due to the growing demand for cybersecurity, experts in other domains have migrated to the world of security, a transition which is difficult, says Debdeep. "A proper training in cybersecurity, on the other-hand, equips one with the necessary knowledge and skills to cater to leading positions driving R&D," he adds.

Fresh outgoing BTechs can look for engineering positions in both software and hardware design companies, while Masters and PhDs can get more specialised R&D positions.

A demand for cybersecurity professionals also exist in government R&D jobs, catering to defence, nuclear plants, and critical infrastructure in general. Even the confluence of data analytics and security, opens up opportunities in several enterprises which deal with search and analytics.

Careers can start with a Bachelor's degree in Computer Science/Electrical Engineering/Electrical and Computer engineering/Mathematics with electives aligned to cryptography and network security. This should be followed by Masters programmes offered by several Institutes in India or abroad, with focus on cybersecurity subjects. "Ideally, a BTech/master's course should offer one with the needed breadth, while a PhD should provide one with depth in the field," says Debdeep.

Some key institutes offering Cybersecurity courses

India: IIT Kanpur, IIT Kharagpur, IIT Madras, IISc Bangalore, IIT Bombay, IIT Indore, IIT Bhilai, IIT Delhi, several NITs, Amrita School of Engineering, Bangalore; ITM University, Raipur; etc

Overseas: University of Stanford, MIT, University of Washington, Princeton University, Georgia Institute Of Technology, Purdue University, Nanyang Technological University Singapore, to mention a few.

January 21

Public loos likely to get urination devices

https://timesofindia.indiatimes.com/city/visakhapatnam/public-loos-likely-to-get-urination-devices/articleshow/67615868.cms

Greater Visakhapatnam Municipal Corporation (GVMC) is considering introducing urination devices for women at certain public toilets in the city on a pilot basis. The project comes in the wake of the invention of the Pee Cone by students at the Indian Institute of Technology, Delhi, last year. The device was launched with a #StandUpForYourself campaign under which one lakh free samples of the product was distributed among women across the country.

Speaking to TOI, GVMC chief medical officer Dr A Hemanth said that the civic body is considering introducing the device at suitable public toilets on a pilot basis. If the pilot project yields the desired results, the corporation will provide the facility in all public washrooms, Hemanth added.

"We have heard about the Pee Cone and are considering introducing the device at the public toilets at RK beach for tourists on a pilot basis," Hemanth said.

The campaign will help women at railway and bus stations, and cinema halls, apart from other public places. Public health department officials and transport authorities are thinking about introducing the facility at bus and railway stations.

Speaking to TOI, APSRTC deputy chief traffic manager M Sudha Bindu said "We will also study the device and introduce it at our bus stations in Dwaraka Nagar soon."

As part of the campaign, Vijinigiri Bhanumurthy, a resident of Vijinigiri at Simhachalam, said that he purchased a set of such devices online and distributed them among the women in his area to promote the usage and health aspects of the device.

"I came across the device on Twitter. An IIT-Delhi student invented the device. I thought of introducing this to the women in my locality as part of my social responsibility," Bhanumurthy said.

IIT Madras Offers Affordable AI Courses

https://www.techiexpert.com/iit-madras-offers-affordable-ai-courses/

Artificial Intelligence is a classification of computer science that emphasises on the artificial behaviour of the computer and its functioning. Resulting in expertise to preside over a computer to braze with knowledge, reasoning, problem solving, perception, learning, planning and ability to

manipulate object. Artificial Intelligence is therefore, a break-through for researching and skilling a computer, designed for:

Speech recognition

Problem solving

Planning

Learning

To increase the apprehension and knowledge to Artificial Intelligence, Indian Institute of Technology, Madras(IIT-Madras), offers on online portal, 'PadhAI', by faculty of computer science department for the students to develop skills through online training. The online portal was founded by Mitesh M Khapra and Pratyush Kumar who are acclaimed assistant professors at Department of Computer Science and Engineering, at IIT-Madras.

'PadhAI' will offer a 4-month course starting from February 1,2019 constituting 80 hours of lecture and assignments that are to be solved by individual candidates.This method includes affordable India-specific courses on AI for the Indian students and faculty for 1,180 INR and working professionals for 5,900 INR. The registrations for the course are open until January 24, 2019. Candidates willing to learn AI related courses can apply at padhai.onefourthlabs.in for an affordable range.

Highlights to the course involves invites to a summer Garage, an AI residency program, at IIT-Madras Research Park for the candidates who rank high in the course while they will have the choice to work on research, problems of societal impact or solutions with commercial value. This course is a head start with the underlying knowledge of mathematics and python. Hence, this course is open for anyone including students, faculty or professionals who have the idea to these skills.

This course as an essential step also involves full fee waiver scholarships for professionals who are unable to pay and women who are returning form a break. 'PadhAI' follows the mission to combine theoretical knowledge with targeting experience, emphasising on limited pre-requisites to unfolding a challenging problem throughout.

"We hope to build a community around PadhAI by continuing to engage with you after the course through the DL garage, subsequent courses, and also through our startup One Fourth Labs which will build solutions on Deep Learning," specifies the 'PadhAI' website. Hence, this masterly online portal for developers and AI seekers explains a way to new and digitalised Indian platform carrying out excelling ideas on Artificial Intelligence.

IIT-Kharagpur researchers dig up signs of life in India from 2.5 bn yrs ago
https://timesofindia.indiatimes.com/home/science/iit-kharagpur-researchers-dig-up-signs-of-life-in-india-from-2-5-bn-yrs-ago/articleshow/67617325.cms

A team of researchers from IIT Kharagpur has found evidence of life in India dating back at least 2.5 billion years — to the beginning of a time known to scientists as the Great Oxidation Event, which marked the entry of oxygen in Earth's atmosphere, making life, as we know it, possible.

The first signs of life have been found in the form of microbial cells in the Deccan, and it took the team four years of arduous work. Finally, the microbes were found at a depth of three kilometres. The findings have been published in the December edition of "Scientific Reports: Nature", an online, open-access journal from the publishers of the prestigious "Nature", one of the most recognisable scientific journals in the world.

The news has stunned the ministry of earth sciences, which had asked the IIT team —led by Pinaki Sar, of the faculty of biotechnology — to probe the beginning of life in India. An official announcement is expected shortly.

Sar said these microorganisms, mostly bacteria, date back to a time when Earth's crust was still unstable and earthquakes, punctuated with volcanic eruptions, were routine. Between 2.5 billion years and 65 million years ago, the crust would intermittently cool but would be shaken up again with fresh eruptions and lava flow. These cool interludes were the time when the first life forms, in the form of microbes, started making their appearances. The Deccan Traps, where the country's oldest rocks (granites and basalt), are located, were home to these first life forms, much like the Witwatersrand in South Africa, Colorado river basin in the US, and Fennoscandian Shield, Finland. Geoscientists across the world are trying to reveal life antiquities on Earth and the discovery by the IIT scientists could well be a landmark, said sources.

The search started in 2014, when the ministry asked the IIT biotechnologists to join a team of geologists at Koyna, in Maharashtra (in Karar village), where a devastating earthquake had occurred in 1964. These geologists were trying to establish the cause of the quake. Since this part of the Deccan is made of the oldest igneous rocks, the ministry asked the IIT scientists to explore the possibility of life deep inside the rock belly. These are hard, near-impermeable rocks where very little water or nutrients had percolated to make life possible.

"The depths of these ancient rocks do not have oxygen, water, organics or light to support life. The rock cores we dug out from three boreholes were investigated and we have been able to prove microbial existence. It is obvious that they fought extreme conditions to stay alive and multiply," said Sar.

Sar said the next phase of their research will focus on whether the organisms are still alive. "We cannot immediately confirm that," he explained, calling the microbes "extremophiles" because they survived extreme conditions. They are extremely intelligent bacteria and they could teach us a lesson or two about how carbon and inorganic sources can be used for survival," he added.

50 seats up for grabs as JNU's first tryst with MBA course begins

https://timesofindia.indiatimes.com/city/delhi/50-seats-up-for-grabs-as-jnus-first-tryst-with-mba-course-begins/articleshow/67616941.cms

Jawaharlal Nehru University (JNU) started the online application process for the Master of Business Administration (MBA) course on Sunday. This will be the first batch of students who will be admitted to the course being offered at the newly established Atal Bihari Vajpayee School of Management and Entrepreneurship (ABVSME).

Based on the scores of Common Admission Test (CAT) and the interview conducted by the university, students will be accepted to the two-year programme. JNU now becomes a new entrant to the list of non-Indian Institute of Management (IIMs) to accept CAT scores.

However, for this course, the university will not take the "additional deprivation points" into consideration, because MBA is a professional course.

The admission process is spread over five months and the students can apply online for the course till March 1. Interviews will be conducted in April and results will be announced on April 26.

The programme will take 50 students every year. The application fee for the course is Rs 2,000 for general and other backward classes (OBC) applicants. For schedule caste, schedule tribe and people with physical disabilities, the application fee is Rs1,000.

CAT 2018 scores will be used for shortlisting candidates for interviews for admission in the MBA programme. At least three times the number of intake in each category will be shortlisted for interviews. The university has also clarified that IIMs have no role either in the selection process or in the conduct of the programme.

Along with the CAT score, for general category, candidates need a minimum of 60% marks in aggregate or equivalent CGPA in the qualifying degree. For OBC candidates, it is a minimum of 55% marks and 45% for SC/ST/PwD candidates.

Candidates appearing for the final year of bachelor's degree/equivalent qualification examination and those who have completed degree requirements and are awaiting results can also apply. If selected, such candidates will be allowed to join the programme provisionally.

Giving an overview of the institute to those interested to apply, and why they think it will be successful, it stated, "JNU has strong national and international credentials and a brand image. The addition of ABVSME to its existing schools will add to its already strong brand image. JNU's proximity to high quality institutions like IIT-Delhi, IIFT, IMI, FMS, and University of Delhi will allow for synergy through meaningful collaborations."

January 19

17-year-old JEE Main 2019 topper reveals his strategy of scoring 100 percentile [Exclusive Interview]

https://www.indiatoday.in/education-today/news/story/17-year-old-jee-main-2019-topper-reveals-his-strategy-of-scoring-100-percentile-interview-1434566-2019-01-19

JEE Main Result 2019: The National Testing Agency (NTA) has announced the Joint Entrance Examination (JEE) Main Results 2019 today, i.e. January 19. All the candidates can check their scores on the official website of JEE, the link for which is jeemain.nic.in

17-year-old JEE Main 2019 topper reveals his strategy of scoring 100 percentile |interview|

JEE Main Result 2019: The National Testing Agency (NTA) has announced the Joint Entrance Examination (JEE) Main Results 2019 today, i.e. January 19. All the candidates can check their scores on the official website of JEE, the link for which is jeemain.nic.in

Meet, 17-year-old Dhruv Arora who topped the <u>JEE Main 2019 examination</u> with 100 percentile.
In an interview with IndiaToday Education, Dhruv Arora, who hails from Madhya Pradesh (MP), informed that he just studied 6-7 hours in a day for JEE Main examination.
"I tried to study more but did not get much time," the JEE Main topper said.

100 percentile in JEE Main 2019:
"I feel really great at this moment. To be honest, I usually don't keep high expectations in life and try to go with the flow," Dhruv Arora told India Today Education.

JEE Main 2019: Score card:

Preparation strategy for IIT JEE Main 2019:
While speaking about preparation strategy for JEE Main, Dhruv said:
"I took admission in Catalyser's two-year programme to crack JEE Main examination where I took mock tests and attempted previous years' question paper."

Talking about Class 12 Boards and JEE Main preparation, Dhruv said, "In Class 12 Board Examination and JEE Main, questions are based on NCERT only, therefore I did not study separately."

JEE Main topper found Chemistry toughest of all:
While commenting on the level of difficulty of JEE Main 2019, Dhruv said:
"In the examination, I found the chemistry questions a bit tricky and tough to solve. Actually, the problem is that in chemistry one has to remember alot of chemical equations as compared to maths and physics."

"Moreover, it depends on person-to-person," the topper added.

More on the educational qualification:
A student of Catalyser, Dhruv Arora took the Bhabha Atomic Research Centre and IAPT's prestigious Physics Olympiad Examination.
Further, Dhruv scored 212 out of 228 marks in the examination.
Previously, Dhruv has achieved AIR-30 in KVPY.
No plans to join IIT:
"As of now, I have not decided whether I would take admission in IIT or not. I might go into research field or join IISc. It's way too early for me to answer my goals and dreams in life," Dhruv said.

Family background:
Dhruv's father is a manager at a pharmaceutical company in Madhya Pradesh while his mother passed away two years back. Further, his younger brother is completing the schooling.

Topper shares success mantra:
"Just attempt maximum number of previous year question papers. It is important for a candidate to build his/her concentration as we usually tend to get bored while preparing for JEE Examination," Dhruv said.

Advice for future aspirants:
"I won't give any specific advice. A candidate should give more time to a subject which he finds difficult," the topper told India Today Education.

About JEE Main Results 2019:
The first JEE (Main) Examination was conducted by NTA between January 8 and January 12, 2019 in two shifts per day across 258 cities in the country and abroad.

A total number of 9, 29,198 candidates were registered for Paper -I (BE/BTech) in this examination.

There were 467 examination centres across the country and abroad.

A total number of 566 Observers, 254 City- Coordinators and 25 State Coordinators were deployed at these centres to oversee the smooth and fair conduct of examination.

The Paper-I was conducted in a total of 8 shifts from January 9 to 12, 2019.