NEWS CLIPS

September 29- October 5, 2018

Highlights of the Week@IITD

The University of Queensland-IIT Delhi collaboration is projected to produce around 360 PhD candidates

October 4, 2018 http://www.edexlive.com/campus/2018/oct/04/the-university-of-queensland-iit-delhi-collaboration-is-projected-to-produce-around-360-phd-candidat-4096.html

While the programme would be jointly supervised by faculty members from both IIT and UQ, what's more, exciting is that it also provides the opportunity to study in Australia on a full scholarship

Terms of Collaboration-General Research or Teaching

The University of Queensland (UQ) is a very renowned institution on an international scale recently partnered with Indian Institute of Technology Delhi (IITD) with a vision to set up a joint research academy to lay the foundations of research and entrepreneurship for potential candidates. In a chat with Edex, the Deputy Vice-Chancellor (External management) of UQ Rongyu Li elaborated on the advantages of the partnership, explaining that with the level of intellectual capacity in India and the growth of the flagship sector, the partnership would be able to produce close to 360 PhD candidates in the next six years. While the programme would be jointly supervised by faculty members from both IIT and UQ, what's more, exciting is that it also provides the opportunity to study in Australia on a full scholarship basis and vice-versa. **Excerpts:**

Advancement in education: While the programme would be jointly supervised by faculty members from both IIT and UQ, what's more, exciting is that it also provides the opportunity to study in Australia on a full scholarship basis and vice-versa

How is your PhD programme different from those offered by other universities?

Since students are subject to the completion of their respective PhD programmes in Queensland, Australia, we encourage students to be open to cross-culture learning and academic excellence at the same time. We aim to equip leaders in the knowledge economy for both India and the world. We have equipped leaders in the past and we can proudly say that we have our students supervised by the best academics in the world.

What is the eligibility criteria for your scholarships?

The criteria laid down for students is very stringent and it is up to IITD to shortlist the best candidates for the same. The criteria used to select the Australian students will be used for Indian students as well. The shortlisted students will then be taken to Australia to complete the programme with every expense taken care of by the University. We will ensure that the students' food, accommodation and flight expenses are taken care of.

Will UQ look at partnering with other educational institutions in the near future?

Once we establish the UQ-IIT Delhi Research Academy, we will look forward to building relationships with other institutions as associate partners. We are working with other institutions on building teaching relationships through various programmes as of now.

Does this programme lead to global career opportunities?

These students will be sought after on a global scale because of the area of expertise provided by the joint programme. Although we would prefer them to contribute to the development of India, they will in high demand in the global labour market.

How does this programme encourage entrepreneurship?

Based on a survey that UQ had conducted recently, it was made known that more than 60% of the student population desired to have their own start-up. Hence, the University decided to encourage and provide funding for the same. As part of our curriculum, we have initiated the concept of an Idea Hub which encourages students with ideas to be a part of an entrepreneurship training programme. Their ideas are then tested for viability, following which they go through a process of germination with close mentorship provided by industrialists and leading entrepreneurs. These students are even sent to innovation hubs like Singapore and Shanghai for training and development from international entrepreneurs.

October 5

Prof B S Sahay takes over as Director IIM Jammu

http://www.dailyexcelsior.com/prof-b-s-sahay-takes-director-iim-jammu/

Prof B S Sahay today took over as first Director of IIM Jammu.

He assumed the office in presence of Deepak Kumar Mukadam, Member, Board of Governors, IIM Jammu and Director, Jaybee Steel Treators Ltd., faculty members and Chief Administrative Officer. Prof Sahay said that he would like to create IIM Jammu as one of the finest business schools in the country with the help and support of all stake holders, including Chairman & the Board, MHRD, GoI and State Government, corporate, faculty, students and staff etc.

Prof B S Sahay is an educator, researcher, transformational leader and institution builder, who sets high standards to create world class institutions with global outlook and national focus. He was the Director of three top national level institutes in India, Indian Institute of Management (IIM) Raipur, Management Development Institute (MDI) Gurgaon and Institute of Management Technology (IMT) Ghaziabad. Prior to joining IIM Jammu, he was Advisor to the Chancellor, NMIMS University, Mumbai.

Prof Sahay did his B Tech from BIT Sindri; M Tech. and Ph D from IIT Delhi, India. He has widely travelled all over the world and went to Germany and Japan under Fellowship Programmes. He has over 35 years of experience in teaching, research, consultancy, executive education including over 12½ years in industry. He has worked both in India and abroad on various assignments for manufacturing and service industries.

Prof Sahay is a top-rated researcher with over 3650 citations, h-index of 28 and i10-index of 41. He has carried out 21 sponsored research projects and 37 consulting assignments and organized 14 major International Conferences. He has published and presented over 200 research papers in international/national journals and conferences. He has authored/edited 22 books in the area of Supply Chain Management, Humanitarian Logistics, World Class Manufacturing, Total Quality Management and Productivity Management.

JEE Advanced 2019: Exam Dates soon on jeeadv.ac.in, how NTA's JEE Main 2019 ranking would affect IIT Admission

https://www.timesnownews.com/education/article/aiims-recruitment-2018-apply-for-2000-vacancies-for-nursing-officers-post-aiimsexam-org/294691

IITs are expected to release JEE Advanced 2019 dates soon on jeeadv.ac.in. Check how the changes in JEE Main 2019 affect the IIT admissions and JEE Advanced 2019 cut off.

How JEE Main 2019 changes would affect JEE Advanced 2019

Indian Institutes of Technology, IITs are expected to announce the dates for the JEE Advanced 2019 examination. The dates and the website are usually notified in the month of October or November. From this year, the qualifier for JEE Advanced 2019 – JEE Main 2019 would be conducted twice. Students have an option of appearing for either or both of the examinations. Here are 5 important points on the changes introduced by NTA and how JEE Main 2019 ranks would affect IIT Admissions in 2019.

JEE Advanced 2019: 5 Important changes in JEE Main 2019 Rank Calculation and how its implications

1. If the students appear in both the JEE Main 2019 January as well as JEE Main 2019 April examinations, then the higher of the two scores would be used for calculation of JEE Main 2019 ranks.
2. In case a student appears for only one of the two examinations, the score of that examination would be used for calculating JEE Main 2019 rank.
3. Cut off for JEE Advanced 2019 would be on the basis of the JEE Main 2019 Rank. Please note, while the results would be announced within the month of the examination, NTA is expected to release the merit list and ranking of JEE Main 2019 after the April examination.
4. JEE Main 2019 ranking would be done on the basis of percentile score and not on the actual scores. To ensure parity between the two attempts and the multiple sessions, NTA would be employing normalization process.
5. Apart from JEE Main 2019 ranking, the IITs are expected to continue the induction of more female students by means of a supernumerary lists. This was introduced in 2018 and is expected to be increased by 5% in 2019.

JEE Advanced dates, eligibility criteria, cut off and other details are expected to be released soon on the official website jeeadv.ac.in. The examination is expected to be conducted on May 12, 2019. The date, however, is not confirmed.

IIT Hyderabad to host workshop on Affordable Housing for all

http://indiaeducationdiary.in/iit-hyderabad-host-workshop-affordable-housing/

Indian Institute of Technology Hyderabad is hosting a workshop on 'Affordable Housing for all using sustainable constructional materials' on 27th October 2018. It is joint initiative of the Structural Steel Research Group from the Department of Civil Engineering, IIT Hyderabad with the Building Materials and Technology Promotion Council (BMTPC) under the aegis of Ministry of Housing and Urban Development, Government of India.

Sustainable Housing is currently the need of the nation. The innovative use of structural steel and other alternate materials in a sustainable manner to solve the residential infrastructure need. The workshop intends to bridge the gap between the researchers from academia and the professionals involved in sustainable growth of the nation.

Speaking about the importance of this workshop, Dr. Mahendrakumar Madhavan, Associate Professor, Structural Steel Research Group, Department of Civil Engineering, IIT Hyderabad, said, "The workshop is aimed to fulfill the Government's vision of Housing for all Indians by 2022 through the use of sustainable constructional materials such as steel. A number of eminent speakers from the construction sector will share their expertise with the participants."

The workshop intends to update the current curriculum at both undergraduate and postgraduate level to disseminate the knowledge of using sustainable materials in the constructional industry. Professors, Industrial Engineers, Research Scholars and students are expected to participate besides various industry representatives.

The cost of the constituents of conventional masonry and concrete structures are sky rocketing due to the non-availability of basic raw material such as sand. Moreover, mining of river sand has been severely restricted to protect the nation's ecosystem. Furthermore, scarcity of drinking water makes the construction of masonry and concrete structures more demanding since they require potable water for increased durability of the structure. This challenging situation necessitates a shift in paradigm to look for alternate materials that are green (eco-friendly) economical and has high ductility to prevent a catastrophic collapse in extreme events.

One such solution to tackle this pressing problem is the use of prefabricated structures using sustainable material such as Cold-Formed Steel or Structural steel. Cold-Formed Steel (CFS) is light-weight, easy to handle, cost effective, dimensionally constant and can be fabricated with ease to a wide range of profiles and sizes with nearly no material wastage. An excellent alternative to traditional materials, the manufacture of CFS sections are subjected to rigorous quality control at the mill thereby reducing the risk associated with the quality of the structural material used in construction.

The majority of the work is being done in a controlled environment (shop), it takes less than half the time to build compared to conventional materials thereby making it an ideal choice for rapid deployment during emergency situations. Moreover, steel is 100 per cent reusable material and is environment-friendly resulting in Green construction.

Unlike India, the use of CFS in a residential building across the globe has significantly increased in the recent past due to its advantage over other construction materials. Although there are major advantages to the use of CFS for the construction practices, there are no technical design guidelines that are readily available for Indian construction engineers. The lack of robust design procedure prevents the growth of CFS as a material of choice in rural and urban residential housing application.

Hence, the objective of this workshop is to create awareness and provide steel based alternate solutions to provide housing for all which is perhaps one of the most formidable challenges before the nation.

October 4

Russia partner for PM student mission

https://economictimes.indiatimes.com/news/politics-and-nation/russia-partner-for-pm-student-mission/articleshow/66062239.cms

Prime Minister Narendra Modi has chosen Russia to build links between high school students of two countries in Science & Technology that would help in sharing of best practices in new-age innovation and entrepreneurship.

An MoU between NITI Aayog's Atal Innovation Mission and Russian Creative school SIRIUS is likely to be signed at the Indo-Russian annual summit on Friday following talks between the Indian PM and the Russian President. The MoU will provide a platform for joint scientific and entrepreneurial efforts by the youth of the two nations.

In a follow-up to this, Modi and Putin in a unique gesture on Friday will also jointly interact with a group of 20 talented students (10 Indian and 10 Russian) who are currently part of a collaborative innovation workshop in IIT Delhi. This endeavour will be institutionalised as SIRIUS plans to host 100 Indian students next year. Officials told ET that this effort is an investment for the future and will foster people-to-people ties as well.

“Russians have an algorithmic mind and have excelled in mathematics, cognitive science, Artificial Intelligence, Robotics and Blockhain among other sectors of the modern age innovation that can benefit India. Russian students are exposed to innovation from the school level.

The government here has also launched such an initiative through the Atal Innovation Mission. The idea is to create synergy between the two sides based on our long standing partnership,” explained an official.

“A collaborative innovation workshop between Russian and Indian Atal Tinkering Lab students is currently underway at IIT Delhi. This is a unique initiative to spur joint innovation, learnings and exchange of ideas between the talented youth of both countries. On the occasion of President Putin’s meeting with the Hon'ble Prime Minister, NITI Aayog’s Atal Innovation Mission and SIRIUS will exchange a strategic MoU in Innovation collaboration.

This MOU will provide a platform for joint scientific and entrepreneurial endeavours by the youth of the two countries,” Rajiv Kumar, Vice-Chairman, NITI Aayog, told ET.

The workshop, whose idea is to share best practices, has been divided into five groups based on five themes -- space; agriculture; health; clean energy; smart mobility and health. The students will jointly present their prototype projects based on these two themes to the two leaders on Friday.

Modi and Putin had meet a group of talented Russian students in SIRIUS in Sochi in May when he was there for the informal summit. The students in ongoing Indo-Russian workshop belong to grades between Class 10-12 and have been chosen from across Indian states and Russian provinces.

“The AIM SIRIUS students exchange program is designed to be a sustainable platform to invigorate high quality innovation mindsets through a diversity of exchanges in creative ideas, innovation practices, and cultural influences between talented school students of Russia and India,” said R Ramanan, Mission Director Atal Innovation Mission.

“Atal Tinkering Labs under AIM in thousands of schools across the country are enabling children from Grade 6 to Grade 12 have access to state of the art technologies like 3D printers, Robotics,

Miniaturized electronics and electronic assembly boards, mobile and IOT sensor technologies, etc., to tinker with, learn from, ideate with, and develop prototype solutions to problems seeking solutions."

Auto companies get IIT drivers to chase their electric vehicles dream

https://economictimes.indiatimes.com/jobs/iits-the-new-talent-pool-for-electric-vehicles-sector/printarticle/66060333.cms

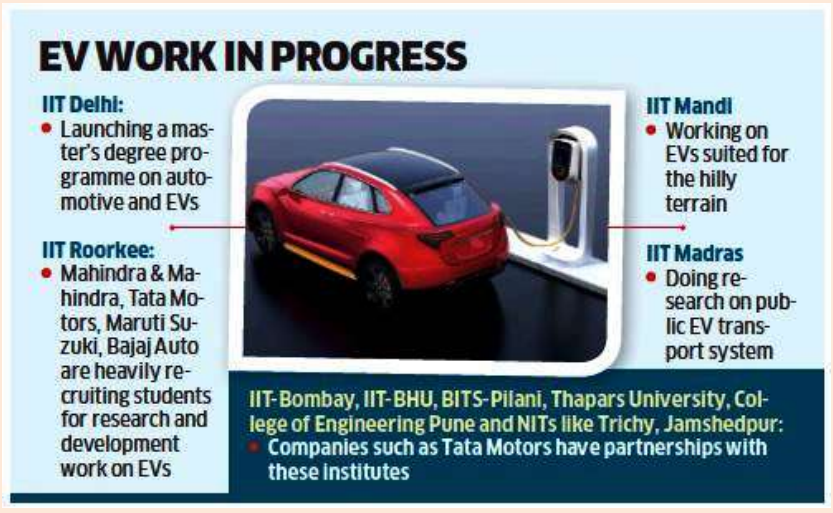
Good old Indian Institutes of Technology (IITs) may have the answer to the shortage of talent and new technologies faced by auto majors to fuel their electric vehicles (EV) dreams.

These premier engineering institutes have their hands full with cutting-edge technologies and are also simultaneously rolling out new courses relevant to EVs to churn out engineers in this new domain. IITs are also becoming a popular hiring ground for engineering talent for the auto firms.

For starters, IIT Delhi is launching a master's degree programme on automotive and EVs on popular demand from the industry. A highly placed source confirmed that this programme is in the final stages of being launched in consultation with leading auto companies. "IITs are known for reinventing their course to match the needs of the industry. This master programme by IIT Delhi may start by next academic year," said a highly placed government official privy to this information.

Many ace auto recruiters are also making a beeline to the IITs for talent. For instance, major automobile companies such as Mahindra & Mahindra, Tata Motors, Maruti Suzuki, Bajaj Auto, among others, have been heavily recruiting students for research and development work on EVs from IIT Roorkee.

"In the last year, the number of job offers in this sector increased by around 30%," said Arup Kumar Das, faculty advisor, Society of Automotive Engineers, IIT Roorkee Motorsports (students group which works on electric vehicles and participates in Formula Student competitions).



Companies such as Tata Motors have partnerships in place with engineering institutes like IIT Bombay, IIT-BHU, BITS Pilani, Thapars University, College of Engineering Pune and NITs like Trichy, Jamshedpur etc. "We strive to continuously develop talent, especially from the bright young talent crop we hire from several leading engineering institutes every year," said the Tata Motors spokesperson.

“These institutes help us not only in co-development of some of the technologies but also identify talent in live development environment while we strive to develop the industry ready talent by co-creating course curriculum and faculty development programme at these institutes,” he said.

As most electric auto/rickshaws currently manufactured are designed for the plains and not suitable for the hills, IIT Mandi is working on EVs suitable for the hills. “IIT Mandi is working with several leading manufacturers to monitor and evaluate the performance of these e-auto/e-rickshaws in a hill terrain to understand upgrades required in terms of power range and stability,” said Shyamasree Dasgupta, assistant professor, school of humanities and social sciences, IIT Mandi. “We are also aiming to develop an appropriate business model for e-autos,” said Dasgupta.

At its recently launched centre for battery engineering and EVs or C-BEEV, IIT Madras is carrying out research along with a number of companies that include Essel Green, Lohia, Kinetic India, Electrotherm, Mahindra, Amara Raja, Exide, on public EV transport system.

Inside the 650 acres IIT Madras campus, a few months ago, C-BEEV tested e-3Wheelers to commute from one place to another. “CBEEV has coordinated with several industries and has come up with common specifications for batteries, vehicles, chargers and whole operating procedure for battery swapping of public infrastructure,” said Prabhjot Kaur, CEO, IIT Madras.

“We are working on batteries to develop indigenous battery management systems for different sizes of batteries for 3-wheelers, cars and buses,” Kaur said. IIT Madras is also making swappable batteries for public transport and range extenders for cars.

IIT Roorkee has several R&D projects for EVs including torque vectoring (this method of power transfer has recently become popular in all-wheel drive vehicles), battery management system design, vehicle control unit, self-designed data acquisition system, brushless DC motor, etc.

Automotive manufacturing company, continental hires from several universities and institutions including the IITs. “We have also offered internship in cutting edge technology domains like Advance Driver Assist Systems for IITians, who have later taken employment with us,” said Soorajith Radhakrishnan, head of powertrain division, Continental India.

Continental is also conducting a joint research with IIT Madras in high-computing platform and cyber security for powertrain applications. This research is for both conventional drive trains as well as electric vehicles.

“Together with IIT Madras, Continental is conducting research on technologies that involve time deterministic behaviour on powertrain controllers and its applications. These high computing domain controllers are also used in electric vehicles which require running of complex software algorithms for achieving energy efficiency,” said Radhakrishnan.

Mahindra & Mahindra is also aggressively hiring young engineers, especially to work on EVs. “In the past couple of years, we would have already doubled our strength of engineers. Based on the current manpower projections we could be adding about 20% over the current,” said Rajeshwar Tripathi, chief people officer, Mahindra and Mahindra

IIT KGP to set up Academy of Leadership: Director

https://www.business-standard.com/article/pti-stories/iit-kgp-to-set-up-academy-of-leadership-director-118100400213_1.html

IIT Kharagpur is all set to establish an 'Academy of Leadership' which intends to develop innovative programmes combining the core curricula in science and engineering disciplines with philosophy and liberal arts.

"This academy will be based not only on scientific and technical training, but the teachings of ancient philosophies, reasoning, systems engineering and the past successes and failures of humanity," IIT KGP Director Prof P P Chakrabarti said Wednesday in a statement.

He expressed hope that this initiative would place students of IIT KGP on the fast track as creative problem solvers and inspiring leaders, both in their professional careers and within their communities.

The academy will be called 'Partha S Ghosh Academy of Leadership', named after management consultant/strategist and philanthropist Partha S Ghosh.

The academy will be seed-funded for USD one million by the distinguished alumnus, who is often addressed as a 'creative problem solver' and a 'visionary leader' by the government and industry leaders across multiple nations in Asia Pacific, Europe and America.

"Under this academy, programmes would be developed to nurture leadership qualities in individuals and organisations, enable leaders of various walks and segments of life to share their perspectives...making it a vibrant self-sufficient one with a global reputation," Chakrabarti said.

The initiative has been facilitated by Ron Gupta, President, IIT Kharagpur Foundation USA who along with Prof Subrata Chattopadhyay, Dean, Alumni Affairs, IIT Kharagpur, led the talks with Partha S Ghosh during a visit by IIT KGP delegates to the USA in September this year.

Courses at the academy will be open to students at all levels, Dean of undergraduate studies Prof S K Barai said.

IIT-Roorkee begins survey to revive Faridabad lake

https://www.tribuneindia.com/news/haryana/iit-roorkee-begins-survey-to-revive-faridabad-lake/662810.html

The dried up Badkhal Lake

A six-member team from IIT-Roorkee has begun the geo-technical survey of the dried-up Badkhal Lake here. This is part of the revival process of the lake undertaken under the Smart City project.

The natural water body spread over 42 acres in the foothills of Aravalli hills went dry almost 20 years ago. The team led by Hari Prasad, a professor in the department of civil engineering, IIT-Roorkee, arrived here on Tuesday and conducted a tour of the lake.

Arvind Kumar, Executive Engineer, Smart City project, Faridabad, said: "The team's objective is to know the permeability (water absorption quality) of the lake bed. The report is expected within a week. The team will suggest ways to refill the lake."

The team will conduct the investigation by digging up trial pits up to three-metre depth at 10 locations in the lake and collect soil samples.

"A seismic reflection survey will also be carried out to obtain the sub-soil stratification of the lake bed," Kumar said.

Badkhal MLA Seema Trikha is confident about the success of the project. "The previous Congress government had ignored the revival of the lake. Chief Minister Manohar Lal Khattar had given a green signal to the project on April 13," she said.

A budget of Rs79 crore has been earmarked for it under the Smart city project. A sewage-treatment plant (STP) will be built near the lake to ensure supply of treated water to the lake on a permanent basis. "The lake will re-emerge as a tourist destination by mid-2020," the MLA added.

IIM-A survey gives bleak picture of economy as business inflation expectations rise sharply to 4.5%

https://indianexpress.com/article/cities/ahmedabad/iim-a-survey-gives-bleak-picture-of-economy-as-business-inflation-expectations-rise-sharply-to-4-5-5385501/

Business Inflation Expectations Survey (BIES) provides ways to examine the amount of slack in the economy by polling a panel of business leaders about their inflation expectations in the short and medium term.

A survey by the Indian Institute of Management-Ahmedabad (IIMA) has found sharp increase in the business inflation expectations, hinting at tough economic condition.

The monthly survey's findings, released on Wednesday, stated, the "one year ahead business inflation expectations" increased sharply to 4.5 per cent in August 2018 from 3.8 per cent in July 2018.

The Business Inflation Expectations Survey (BIES) provides ways to examine the amount of slack in the economy by polling a panel of business leaders about their inflation expectations in the short and medium term, stated an official release from the B-school.

In the survey where about 1,600 firms — mostly from the manufacturing sector — were sampled in August, about 70 per cent of them reported that increase in costs has been more than three per cent.

Meanwhile, the number of firms reporting “normal or above normal” profit has been gradually declining during the last three months, stated the release.

“The survey is unique as it goes straight to businesses, price setters, rather than to consumers or households, to understand their expectations of the price level changes. One major advantage of the BIES is that one can get a probabilistic assessment of inflation expectations and thus can get a measure of uncertainty. It also provides an indirect assessment of overall demand condition of the economy,” the release added about the survey.

October 3

Continental ties up with IIT Madras for Cyber Security in Powertrain applications

https://economictimes.indiatimes.com/industry/services/education/continental-ties-up-with-iit-madras-for-cyber-security-in-powertrain-applications/articleshow/66057171.cms

The research will focus on intrusion detection and reporting on powertrain applications.

A memorandum of understanding was signed today between Continental and Indian Institute of Technology (IIT) Madras for joint research in cyber security and high computing platform for power train applications.

The company’s joint research with the university proposes to address what it termed “an industry white spot” - cyber security for conventional drivetrains. The research will focus on intrusion detection and reporting on powertrain applications, according to the company. It suggested this segment had become an area of concern for vehicle manufacturers, with vehicles becoming increasingly ‘connected’.

It also added that with the impending BS VI implementation, electronics content is on the rise in vehicles in India necessitating higher computational power. “With high computing platforms, car manufacturers will be able to maintain their ability to compete on various innovative functions and enlarged flexibility on software development. Together with IIT Madras, Continental will conduct research on technologies that involve time deterministic behavior on powertrain controllers and its applications,” the company said in a press note.

Girish Ramaswamy, Head of System Engineering – India, Engine Systems, Division Powertrain at Continental, said “To achieve safe, secure and reliable drivetrain electronic systems, more sophisticated and advanced features along with higher computational power become necessary. As inter and intra vehicle networks become more complex and multi nodal, they become more vulnerable to threats. Hence, secure communication becomes paramount. This, in turn, is achieved through robust and less intrusive networks.”

Apart from this collaboration, IIT Madras has also been actively working on other projects in the area of Cyber-Physical Systems (CPS), specifically in the design of fault-tolerant, secure, and reliable systems, said Pratyush K Panda, Assistant Professor, Computer Science and Engineering, “Together we are looking forward to attack two interesting and timely problems: How do we achieve high performance with reliable timing guarantees on the powertrain, and How do we automatically detect and flag intrusions on to the powertrain software."

Alumnus to donate $1 million to IIT Kharagpur to set up Academy of Leadership

https://www.hindustantimes.com/education/alumnus-to-donate-1-million-to-iit-kharagpur-to-set-up-academy-of-leadership/story-joJ3IE44DOS0biOs4AaBqJ.html

Partha S Ghosh, an alumnus of Indian Institute of Technology, Kharagpur (IIT–Kgp) has promised to donate US dollar 1 million to the institute for the setting up of an Academy of Leadership.

Partha S Ghosh, an alumnus of Indian Institute of Technology, Kharagpur (IIT–Kgp) has promised to donate US dollar 1 million to the institute for the setting up of an Academy of Leadership, which will be India’s first of its kind, IIT-Kgp authorities announced on Wednesday.

A Memorandum of Understanding was signed in this regard on October 2.

Ghosh, former partner at McKinsey & Company and a management strategist and philanthropist, is presently professor at Tufts University.

The “Partha S Ghosh Academy of Leadership intends to develop innovative programmes combining the core curricula in science and engineering disciplines with philosophy, reasoning, and liberal arts,” IIT–Kgp authorities said.

“This is to be based not only on scientific and technical training, but the teachings of ancient philosophies, reasoning, intuitive thinking, systems engineering and the past successes and failures of humanity,” IIT Kharagpur director Partha Pratim Chakrabarti said.

According to Ghosh, “Industries and governments will need to reinvent the basic tenets of capitalism implying fundamental transformation of industry and economic models.”

This donation comes 25 years after the Vinod Gupta School of Management was opened at IIT–Kgp with $2 million donated by Vinod Gupta, who was an alumnus.

IIT-K, Swiss firm develop fully automated system to predict landslides half an hour in advance

https://timesofindia.indiatimes.com/city/dehradun/iit-k-swiss-firm-develop-fully-automated-system-to-predict-landslides-half-an-hour-in-advance/articleshow/66059842.cms

A first-of-its kind fully automated landslide warning system will be installed in seven landslide-prone areas in Bhagirathi valley in Uttarkashi district. The system will allow villagers in the area to be warned half an hour before a landslide is likely to occur. Automatic weather stations (AWS) will be set up to collect real-time rainfall data every 10 minutes for prediction of landslides. The system, which has been developed by IIT-Kanpur in association with a Swiss firm, will be installed in the state under the aegis of the United Nations Development Programme (UNDP).

“This is the country’s first completely automatic system to warn about landslides and will empower those living in danger zones to be well-prepared to tackle such events,” said Rashmi Bajaj, state head, UNDP, Uttarakhand.
Elaborating on the system, Rajiv Sinha, HoD, environment sciences, IIT Kanpur, said, “The fact that landslides occur during monsoon is not a coincidence. Rainfall creates soil moisture that leads to development of water pore pressure between the rock and soil. This pressure ultimately leads to landslide. At any given area when other factors (geology, rock type, vegetation cover etc) are static and only rainfall is dynamic, it clearly indicates that rainfall is the trigger for landslides.” He added that “the system developed by IIT Kanpur and Helvetas Swiss Intercooperation will predict landslides based on rainfall data.” “A ‘rainfall threshold’ will be identified for each site and threshold analysis would be done for each site and early warnings will be sent based on it,” Sinha said.

The weather stations to predict landslides will be of very high resolution and will record data at a very low interval which is 10 minutes as against the current norm of hourly data gathering. The rainfall data will be sent to the disaster management cell in Dehradun which will analyse it and send alerts to the DM office so that villagers can take action.

Sinha said that field visits by experts in September revealed that landslide incidents were reported by villagers to higher authorities whereas the need was for a top to bottom approach where the district administration should warn the villagers of an impending disaster.

The project is part of UNDP’s Strengthening State Strategies for Climate Action (3SCA) managed in partnership with state governments.

IIT Mandi-Incubated AI Startup Bags Awards in Startup Pitch Contest

https://www.ndtv.com/education/iit-mandi-incubated-ai-startup-bags-3rd-place-in-schneider-electrics-asia-pacific-level-startup-pitc-1926332

The Solar Labs, the award winning startup, helps solar companies analyze sites remotely using site video and design an optimized solar PV system that generates the maximum solar energy for that site.

The Solar Labs was incubated at IIT Mandi Catalyst and NASSCOM 10k Startups.

An Indian Institute of Technology (IIT) Mandi-incubated startup has won the third place in Schneider Electric's Asia Pacific level startup pitch contest held in Singapore recently. The Solar Labs, the award winning startup, helps solar companies analyze sites remotely using site video and design an optimized solar PV system that generates the maximum solar energy for that site. With the help of this startup, according to a statement from the technological institute, companies can cut down on their design time and increase top line revenue.

The Solar Labs was incubated at IIT Mandi Catalyst and NASSCOM 10k Startups.

IIT Mandi Catalyst is the first Technology Business Incubator or TBI in the state of Himachal Pradesh.

Companies doing OPEX installations can get a higher ROI or Return on Investment on their installed systems due to better designed systems, said the statement.

"The award contributes to market validation for The Solar Labs Team at an international level. We wish the team best in forging international collaborations and partnerships that would benefit them," said Dr. Puran Singh, Faculty In-charge, IIT Mandi Catalyst.

The Solar Labs Startup was founded by IIT Mandi students who rejected high paying jobs and started the company together. The company started off based on multiple internships done by Mr. Siddharth in the solar industry. He assessed how industries functioned with overly manual processes and very little use of technology apart from solar panels and inverters itself besides complex software.

Speaking about Solar Labs, its Founder and CEO, Mr. Siddharth Gangal said, "At IITs, we learn about the latest technology and implementations. I saw how the latest research in Computer Vision and Artificial Intelligence could be applied to ease processes in the solar industry, which are overly manual and un-optimized."

Using Artificial Intelligence, the statement from IIT Mandi said, the Solar Labs software can find out for any roof what was the best way to place solar system on the roof. The startup plans to scale up their business, particularly focusing on sales abroad.

More than 3,200 world-leading entrepreneurs, executives, and industry leaders gathered together at Innovation Summit Singapore 2018 to explore, discuss and create opportunities for powering and digitizing the economy.

Cabinet nod for acquisition of 13 lakh sq m land for IIT Goa

https://timesofindia.indiatimes.com/city/goa/cabinet-nod-for-acquisition-of-13l-sq-m-land-for-iit-goa/articleshow/66046433.cms

The state cabinet has approved the acquisition and transfer of land admeasuring 13 lakh sq m for the setting up of IIT Goa's permanent campus. The land lies across the talukas of Sanguem and Quepem, in the villages of Cortarli and Nagvem respectively.

In 2014, the Centre announced the setting up of five new IITs, including one in Goa. Thus, the state government was requested to identify a suitable location for the institution.

IIT Goa, which became operational in 2016, currently runs from the Goa College of Engineering campus in Farmagudi, Ponda.

A cabinet note stated that IIT is a centrally-funded autonomous technical institute, setup and administered by the ministry of human resource development (MHRD).

Out of the 13 lakh sq m identified, approximately 4.04 lakh sq m (3.47 lakh sq m belonging to private parties and 57,000 sq m belonging to the comunidade of Nagvem) needs to be procured. The cabinet note stated that this land would be acquired at a cost of approximately Rs 41 crore The balance 9 lakh sq m is recorded in the name of the government of Goa in Cortarli village.

A senior town planner with the department of town and country planning said that the site is suitable for setting up the proposed IIT Goa, and suggested that non-conforming land use zones in the site need to be placed before the Section 16A committee (of the TCP Act), according to the cabinet note.

“A proposal on the same has been moved to the TCP department to convert the present zoning of the identified site, which is mostly agricultural, to the institutional zone,” cabinet note said.

Replace 'British-inspired' convocation attire with Indian dresses: Prakash Javadekar to varsities

https://www.indiatoday.in/education-today/news/story/replace-british-inspired-convocation-attire-with-indian-dresses-prakash-javadekar-to-varsities-1354531-2018-10-03

"Gandhi also advocated use of Khadi. Due to various initiatives, Khadi sale has gone up by four times hence paving way for creation of more jobs. This will be an apt tribute to him on his 150th birth anniversary," said Prakash Javadekar.

Union HRD Minister Prakash Javadekar

As a tribute to Mahatma Gandhi, the Union HRD Minister Prakash Javadekar appealed universities across the country to replace their "British-inspired" convocation attire with traditional Indian clothes as a tribute to Mahatma Gandhi.

While asserting that Gandhi advocated use of Khadi, Javadekar suggested that universities ask their students to come up with design options for traditional convocation attire.

Here's what Prakash Javadekar said:

"I would like to urge all universities across the country that rather than going for British-inspired clothes for their convocation they should go for traditional Indian clothes. Universities can ask their students to come up with design options or can also refer to some designs posted on HRD Ministry's website," Javadekar said in a recent PTI report.

"Gandhi also advocated use of Khadi. Due to various initiatives, Khadi sale has gone up by four times hence paving way for creation of more jobs. This will be an apt tribute to him on his 150thbirth anniversary," Javadekar added.

UGC notice to universities:

Meanwhile, in July 2015, the University Grants Commission (UGC) had asked universities to consider using handloom fabric for ceremonial dresses being prescribed for special occasions like convocations.

Following that, many institutions of higher education, including IITs of Kanpur and Bombay introduced traditional attire for convocation ceremonies.

Moreover, at the first IIT-BHU convocation in 2013, men students wore white dhoti-kurta or pyjama-kurta and women students wore white sari or salwar-kurta, doing away with the colonial black gown and hat.

October 2

प्रदूषण से जंग: मेथेनॉल से चलने वाली बाइक का इंजन तैयार

https://www.livehindustan.com/national/story-fighting-with-pollution-bike-engine-runs-on-methanol-is-ready-2201807.html

अब आपकी बाइक पेट्रोल से नहीं मेथेनॉल से भी फर्राटा भर सकती है। इससे न तो मंहगे पेट्रोल से आपके घर का बजट बिगड़ेगा और न ही वातावरण प्रदूषित होगा। आईआईटी कानपुर के प्रो. अविनाश अग्रवाल की टीम ने ऐसा इंजन तैयार किया है, जो बाइक में लगने के बाद मेथेनॉल से चलेगा। बुलेट

पर सफल ट्रायल के बाद अब 125 सीसी इंजन वाली बाइक पर इसका प्रयोग किया जा रहा है। यह पेट्रोल से तीन गुना सस्ता होगा।

पिछले तीन वर्षों की लगातार मेहनत के बाद आईआईटी कानपुर के मैकेनिकल इंजीनियरिंग विभाग के प्रो. अविनाश अग्रवाल और उनकी टीम ने ऐसा बाइक का इंजन बनाया है जिसमें पेट्रोल के स्थान पर मेथेनॉल का सफाल इस्तेमाल किया है। अभी तक सरकार पेट्रोल में 10 से 15 फीसदी मेथेनॉल मिलाकर पेट्रोल की समस्या को कम करने की बात कह रही थी। जबकि प्रो. अग्रवाल ने 85 फीसदी मेथेनॉल और 15 फीसदी पेट्रोल या अन्य गैस को मिलाकर तैयार फ्यूल से बाइक चलाने में कामयाबी पायी है।

प्रो. अग्रवाल ने बताया कि संस्थान में पिछले एक वर्ष के दौरान 350 सीसी से 500 सीसी वाली बुलेट पर इसका प्रयोग किया गया। करीब छह माह के ट्रायल के दौरान किसी तरह की कोई परेशानी नहीं आई गाड़ी का एवरेज भी पेट्रोल के समान ही रहा तो उसकी गति में भी कोई अंतर नहीं आया। अब इसका प्रयोग 125 सीसी इंजन वाली बाइक में किया जा रहा है। एक बड़ी बाइक निर्माता कंपनी के साथ इसका ट्रायल चल रहा है। पूरी तरह सफल होने के बाद मेथेनॉल से चलने वाला इंजन लगाकर ही बाइक बाजार में उतारी जाएगी।

मेथेनॉल क्या है ?

- मेथेनॉल हल्का, वाष्पशील, रंगहीन, ज्वलनशील द्रव है।

- यह सबसे सरल अल्कोहल है। यह जैवईंधन के उत्पादन में भी उपयोगी है।

- यह प्राकृतिक गैस, कोयला एवं विभिन्न प्रकार के पदार्थों से बनता है।

पेट्रोल से तीन गुना सस्ता ईंधन

प्रो. अविनाश ने बताया है कि पेट्रोल की अपेक्षा मेथेनॉल काफी सस्ता है। मेथेनॉल की कीमत करीब 20 रुपये प्रति लीटर के करीब आती है। साथ ही गाड़ी के एवरेज में भी कोई खास अंतर नहीं आता है। इससे बाइक चलाना करीब तीन गुना से अधिक सस्ता हो जाएगा।

IIT-Kharagpur named national coordinator for research scheme

https://indianexpress.com/article/education/iit-kharagpur-named-national-coordinator-for-research-scheme-5382008/

Each Indian institution can submit proposals with any of the 28 foreign countries. Evaluation will be done first by a sectional committee and the final evaluation will be done by an apex committee.

IIT-Kharagpur has been named the national coordinating institute of the Scheme for Promotion of Academic and Research Collaboration (SPARC) of the Ministry of Human Resource Development. The programme seeks to “improve the research ecosystem of India’s higher educational institutions by

promoting academic and research collaboration between Indian institutions and best-in-class faculty and renowned research groups in foreign institutions".

As the national coordinator, IIT Kharagpur will be routing SPARC funds, managing the online portal, coordinating with the other nodal institutes of India, organising two annual SPARC conferences, liaising with MHRD and managing the intellectual output of SPARC. As many as 28 foreign countries are being targeted in the first phase of the scheme. The partner foreign institutes will be those that hold top QS World University Rankings, said a press statement issued by IIT Kharagpur Monday.

"The scheme proposes to support components considered critical to the production of impact-making research. It will fund visits and long-term stay of top international faculty or researchers in Indian institutions to pursue teaching and research. Not merely that, it will also fund visits of Indian students for training and experimentation in premier laboratories worldwide,'' said the statement.

Professor Partha Pratim Chakrabarti, director of IIT-Kharagpur, said, "SPARC funding will be primarily used for fundamental research areas, emerging areas of interest, convergence areas, action-oriented research and innovation-driven research. Areas of collaboration will include science and technology, humanities, social sciences and so on."

Apart from "providing international expertise to solve major national problems", SPARC is expected to lead to the production of jointly authored publications, research monographs, patents, demonstrable technologies and products, several workshops and two national conferences each year. Last Friday, a web portal for the SPARC was launched by the MHRD. The proposal portal (www.sparc.iitkgp.ac.in) will open on October 4 and remain open till November 15.

Each Indian institution can submit proposals with any of the 28 foreign countries. Evaluation will be done first by a sectional committee and the final evaluation will be done by an apex committee. Professor Adrijit Goswami, joint coordinator of SPARC for IIT-Kharagpur said, "We are expecting to approve around 600 proposals."

MHRD presents Swachhata Ranking Awards 2018 for Higher Educational Institutions

https://results.amarujala.com/career-diary/mhrd-presents-swachhata-ranking-awards-2018-for-higher-educational-institutions

The Union Minister for Human Resource Development, Prakash Javadekar conferred Swachhata Ranking Awards 2018 for higher educational institutions in Delhi recently.

Best 51 higher educational institutions have been selected for Swachhata Ranking Awards in 8 different categories.

Speaking on the occasion, Prakash Javadekar said that cleanliness must be a habit in students and it can be developed only in educational institutions, therefore Ministry is promoting and rewarding cleanliness efforts of educational institutions.

He further said that clean India is the foundation of healthy India; Swasth Bharat cannot become reality without Swachh Bharat and government is committed to making it possible.

Prakash Javadekar remembered Mahatma Gandhi on this occasion and said that he was the real brand ambassador of cleanliness and he educated people towards cleanliness by all his efforts.

He said that we must give our tribute to Mahatma Gandhi by making our country a clean country.

He informed that 9 Crore toilets have been made and 4.80 lakh villages have been announced as Open Defecation Free (ODF) in short span of 4 years which is a remarkable achievement for the nation under Swachh Bharat Mission.

The Union Minister emphasized that we should educate our children and society about solid waste management, electric waste management, and water harvesting techniques so that they can make our country more eco-friendly and clean.

He said that due to Swachhata Ranking Awards our educational campuses are becoming clean now we take them to further, from clean campus to green campus.

The Union Minister also released two books during the event
1. Elective Course Curriculum on Swachhata and Waste Management
2. Booklet on 60 HEIs campus and Village Swachhata Activities. He congratulated MGNCRE for launching a sanitation course on Swachhata Management in the curriculum.
Union Minister of State for HRD, DR Satya Pal Singh said that the cleanliness is the real meaning of education and we must adopt it. He emphasized internal cleanliness as well as outer cleanliness to become a good human being. He said that the basic aim of education must be to make a complete human being. Cleanliness is such a sacred thing which must be followed like one follows a religion, he added.

Secretary, Higher Education, R. Subrahmanyam, Chairman UGC, D P Singh, and Chairman AICTE, Anil Sahasrabudhe were also present along with other officials during the event.

This year online submission of details sought from HEIs, 6029 institutions applied, 205 institutions shortlisted based on cut-off. AICTE & UGC inspected all 205 institutions. Best 51 institutions selected in 8 categories:

- Universities (Residential & Non-Residential)
- Colleges (Residential & Non-Residential)
- Technical Institutions (Universities – Residential)
- Technical Colleges (Residential & Non-Residential)
- Government Universities

Salient features of Swachhata Ranking Awards–

1. The Swachhata Rankings exercise has been initiated by Department of Higher Education to generate healthy peer pressure among higher educational institutions for keeping and maintaining hygienic campuses so that the environment for student learning becomes clean and leads to higher thinking.

2. Department has recognized that educational institutions should play the lead role in not only their in-campus hygiene but also by adopting villages around their area for promoting hygiene through awareness creation and other assistance.

3. This year's rankings have received more than double the response from educational institutions compared to last year. More than 6000 institutions have participated. The parameters have been made more scientific to include aspects like rainwater harvesting, solar power, quality of hostel kitchen apparatus, water supply system quality, maintenance method sophistication etc.

4. This year's Rankings have brought out some very significant and interesting features of our higher educational institutions in the area of Swachhataand the way they are managing their campus environment.

For the 6029 institutions that applied, some of the highlights are:

i) 2430 institutions have solar power in their campus and 940 more are under progress. This is nearly 56% solar coverage
ii) 3577 institutions have rainwater harvesting facility – this is nearly 60% coverage
iii) 5607 institutions out of 6000 have 24 hours running water. This is a 93% coverage
iv) 3915 campuses have more than 30% green cover and this is 65% of the institutions. Some leading institutions have also up to 60% green cover.
v) 2557 institutions have a full composting facility in their campuses and this is 42% of them.

5. Higher Educational Institutions have to also spread the message of Swachhata in villages and other neighborhoods since they are knowledge institutions and knowledge is meant to be shared. Village activity has been made a parameter with 10% weight. Any institution that wants to be considered for rankings has to necessarily adopt a village or some villages and carry out hygiene & health-related activities in it.

6. From the data submitted, it has been observed that after the activities & interventions of our institutions this year, 2110 nos. of villages have been made Open Defecation Free (ODF). In another 2100 institutions, ODF work is in progress. Further, in 2016 villages, systems for sustainable waste management have been installed. The list of villages and institutions working on them has been printed. Swachhata in our Department and institutions is not a symbolic event but a year-long,

continuous process of engagement and improvement of both campuses and villages. Educational institutions are playing an internal & social role in hygiene that is tangible and can be seen.

7. From this year onwards, HRD Ministry would be developing careers in Waste & Environment Management by introducing an elective course in the subject and also a PG Diploma in Waste Management that includes an internship. These two courses will be introduced from the January semester onwards. So a complete job oriented approach to Swachhata is on the anvil.

8. MHRD is committed to taking this Mission Swachhata to encompass every educational institution and encourage them to undertake not only campus cleanliness but also village cleanliness and contribute to a clean & pure thinking India.

IIT Guwahati bags second prize in Swach Ranking Awards 2018

http://www.guwahatiplus.com/daily-news/iit-guwahati-bags-second-prize-in-swach-ranking-awards-2018

IIT Guwahati bagged the second rank in a national level Swach Campus Ranking 2018 conducted by the Ministry of Human Resource Development (MHRD) in New Delhi on Monday.

Best 51 higher educational institutions have been selected for Swachhata Ranking Awards in 8 different categories.

The category of cleanest technical institutions is topped by Amrita Vishwa Vidyapeetham in Coimbatore with IIT-G in the second spot and Siksha 'O' Anusandhan University in Bhubhaneshwar in the third spot.

It is to be mentioned that, it was only last year that the rankings were introduced by MHRD in order to encourage the educational institutions towards cleanliness.

Salient features of Swachhata Ranking Awards–

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4. This year's Rankings have brought out some very significant and interesting features of our higher educational institutions in the area of Swachhataand the way they are managing their campus environment.

IIT Madras launched a 2 year Executive MBA program

https://www.brainbuxa.com/education-news/iit-madras-launched-a-2-year-executive-mba-program-8717

IIT Madras is inviting the applications from the Middle and Senior level professionals for the executive MBA that will help them enhance their careers. The application process started on September 30, 2018 and is a 2-year degree program. The MBA program is specially designed for the working professionals and can be pursued easily alongside the career as classes will be held on alternate weekends.

Industries today are looking for the employees and workers that have the necessary skills and resources for the organization's success and IIT Madras's Executive MBA is designed to fill the employee's arsenal with such technologies and skills.

"Another key concern would be to try and balance the young tech-savvy Next Gen and Millennial resources with the experienced existing employees. The Executive MBA program aims to meet these requirements," the statement added.

"With over 50 years of experience and expertise in imparting management education, exploring leading-edge research and conducting specialized training, IIT Madras is uniquely positioned and carved a niche for itself in the business and academic worlds," Faculty Coordinators or the program Professors R P Sundarraj and R K Amit.

"DoMS, IIT Madras is one of the leading centers of management research and teaching in India. The EMBA program draws its strength from the DoMS faculty who have been involved in high impact research and teaching in the frontier areas of management," they added.

One of the students, Dr. Ajitesh Radhakrishnan IRS, Deputy Commissioner (Admin), Goods and Services Tax (GST), Chennai-Outer Commissionerate, said, "The EMBA course offered by IIT-Madras is unique in the sense that it is both comprehensive and hands-on. The faculty with their vast experience and solid academic footing are very mature in their handling of the course requirements and dedicated in their attitude to impart the intended skills. The infrastructure in place is impeccable."

Delhi: Satisfied with IIT-Roorkee report, NGT okays Purana Qila lake revival

https://timesofindia.indiatimes.com/city/delhi/delhi-satisfied-with-iit-roorkee-report-ngt-okays-purana-qila-lake-revival/articleshow/66041846.cms

The National Green Tribunal has given its nod to the revival of the iconic Purana Qila lake here by laying impermeable plastic lining on its bed and has rejected the claim that the project was being undertaken in a manner which would damage the environment.

A bench headed by NGT Chairperson Justice A K Goel said that there may be different opinions on the subject but once an informed decision has been taken on expert advice for the use of impermeable plastic lining, it is difficult for the tribunal to reject the view.

The green panel took note of the submission of the state-owned construction firm NBCC that development work of the iconic Purana Qila lake here was being done as per the suggestions of the IIT-Roorkee and rainwater harvesting structures were being built for ground water recharge.

The NBCC had said that drawings for development works at Purana Qila lake were approved by the Archaeological Survey of India (ASI) and it was directed to seek expert advice from a reputed institute such as IIT for laying of the ethylene propylene diene terpolymer (EPDM) membrane in the lake and send the same to ASI.

"The applicant in person states that the opinion of the IIT is not sound. Recharge of ground water has to be a priority. If there is any apprehension that the recycled water may not be convenient for the recharge, option of obtaining regular supply of treated water could be explored.

"There may be different opinions on the subject but once an informed decision has been taken on expert advice for the use of impermeable plastic lining which we find difficult to direct rejection of that opinion and acceptance of opinion of the applicant. Accordingly, this application is disposed of," the bench said.

The NBCC had told the tribunal that IIT Roorkee report states that the benefits of maintaining a perennial source of surface water of good quality over an area of approximately seven acres outweigh minor concerns on ground water recharge and rain water harvesting structures can be built within the area.

The tribunal had earlier directed the NBCC to submit a report on the question whether plastic lining should be removed or whether alternative options for lake revival should be preferred. It was also asked to respond on the plea against chlorination of the water body.

The direction came on a plea filed by city-resident R K Gupta who contended that NBCC and the Archaeological Survey of India (ASI) have put a plastic sheet on the bed of the lake, preventing groundwater recharge by both treated recycled water and rainwater.

The plea said that the method of concretisation and laying down of the sheets will lead to damage to the lake.

"The ASI and NBCC should have noted that the Old Fort lake in its old form was unlined adding considerably to the groundwater recharge round the year in the area declared as critical by the Central Ground Water Board.

"By their act the two agencies have eliminated recharge through the bed of the lake causing grave environmental damage. The project as conceived and being implemented has adverse impacts on the environment, contrary to the ecosystem of the lakes," the plea said.

The petitioner sought directions to restore the lake to its natural condition by removing impermeable plastic lining and explore alternative revival techniques for the water body.

The NGT had earlier slammed the ASI over the poor condition of the lake and summoned its senior official to explain why it had not been cleaned despite its direction.

October 1

We encourage research orientation in undergraduates, says IIT Indore director

https://timesofindia.indiatimes.com/home/education/news/we-encourage-research-orientation-in-undergraduates-says-iit-indore-director/articleshow/66026684.cms

Director of IIT Indore Pradeep Mathur speaks to TOI on making the first appearance in the Times Higher Education (THE) ranking and his vision to increase the number of international students

While Indian Institute of Science (IISc) retains the lead, the Indian Institute of Technology, Indore (IIT Indore) emerged as India's second highest-ranked university in an impressive debut entry, in the Times Higher Education (THE) ranking, announced recently. Making a presence in the 351-400 best universities, the Institute now aims to make a strong presence in the Institutions of Eminence (IoE) initiated by the Indian government.

In an exclusive chat with the Education Times, Pradeep Mathur, director of IIT Indore, spoke of how presence in THE ranking did not come as a surprise to him and the institute. "We had proposed to break into at the international level, two years back. Since then our focus has been to enhance the overall quality of education, research and attract best faculty members," said Mathur.

"We have managed to get seasoned, well-educated foreign-trained faculty members. Around 80% of the faculty members have been hand-picked during our foreign travels, where we analysed their

work vis-a-vis our requirements," added Mathur, stressing at the need for high-level research in the education sector.

Research excellence was the main reason that IIT Indore topped the list, ahead of old and established IITs in Delhi, Madras and Mumbai. However, Mathur credits it to 'no rigid boundary' ideology followed by the institute.

"We encourage interdisciplinary work in our laboratories which increases the research output. Stressing on the dictum that teaching and research go hand in hand, we inculcate the research orientation right from the undergraduate level," said Mathur.

"It's a myth that India is not at par with the international standard of research. The international ranking system is based on unique parameters. We need to attract international students at master's and post-doctoral level to remain in the race," added Mathur.

At present, two students have been enrolled in the master's programme and every year around 15-20 students come to IIT Indore for short-term courses. "If we look at the top twenty universities in the world, the number of international students is approximately 30%. We gradually plan to increase our intake of international students to 5-10% by 2020," he said.

IIT Indore that came into existence in 2009, battled several hurdles such as not having land allotted for the first four years and operating out of temporary, but that did not deter in building state-of-the-art infrastructure to felicitate research.

Prime Minister asks VCs to set goals to be fulfilled during tenure

https://news.careers360.com/prime-minister-asks-vcs-set-goals-be-fulfilled-during-tenure

The Prime Minister has the heads of higher education institutions to set goals for themselves and try to fulfil them within their tenure at the office. He has also asked the universities to develop new methods of teaching and also asked them to strengthen the teaching system by using new technology.

Prime Minister Narendra Modi speaking at the Conference on Academic Leadership on Education for Resurgence said, “the tenure of most people is four to five years. While working during these years, you should also set some goals for yourself.” He said that from the very first day the Vice

Chancellors, Directors need to think that when they finish their term, what they are leaving behind as the legacy?

The University Grants Commission (UGC) has recently granted graded autonomy to 60 universities and colleges that include academic and financial autonomy. Prime Minister talking about the development said, “It is an unprecedented experiment and this decision has to be taken forward to us and the institute. Recently, the UGC has also released the Graded Economic Regulation, which gave autonomy to universities and colleges. Its purpose is to improve the standard of education and it will also help in making them the best. Due to this regulation, 60 higher education institutions and universities have got grade autonomy in the country.”

Recalling the ancient Indian texts, the Vedas, the Prime Minister said that we cannot imagine our society, our country, and even our lives, without knowledge. He said that our ancient universities such as Taxila, Nalanda and Vikramshila, gave importance to innovation, besides knowledge.

He urged students to link their classroom learnings to the aspirations of the country. He also mentioned Atal Tinkering Labs which have been set up to encourage children to innovate. He mentioned the RISE – Revitalization of Infrastructure and Systems in Education -programme for improving education infrastructure. He mentioned the steps taken for higher education.

The Prime Minister emphasized the importance of preparing good teachers for society. He also said that scholars and students can take responsibility for spreading digital literacy and generating greater awareness of government programmes that can improve the ease of living.

The Prime Minister said that the youth has given “Brand India” a global identity. He mentioned schemes such as Start Up India, Stand Up India and Skill India, which are aimed at nurturing young talent.

1.2 lakh schoolkids all over country to make solar study lamps

https://www.dnaindia.com/mumbai/report-12-lakh-schoolkids-all-over-country-to-make-solar-study-lamps-2670058

Solar Urja File photo of one such workshop conducted by Solar Urja where students learnt to make solar lamps in small scale

On Gandhi Jayanti, 1.2 lakh school students from across the country will take a step towards a sustainable future. In a workshop to be conducted by Solar Urja (SoULS), students from all over the country will be taught to make solar lamps.

In Mumbai, the venue is IIT Institute of Technology Bombay (IIT-B). As part of its Diamond Jubilee celebrations in association with Techfest, IIT-B will organise a unique one-day training workshop called 'Student Solar Ambassador Workshop' on October 2. Out of the 1.25 lakh, 5500 students are from Maharashtra. 40 school kids from Kerala will come to IIT-B campus for the workshop. The students will be from class 8th to class 12th.

The IIT-B students have tied up with SoULS through Localization for Sustainability, an initiative by the institution located at Powai for the same. The workshop will begin from 10 am and will conclude at 3 pm.

Suseendran Bhaskaran, media manager of IIT-B Techfest said, "For the workshop, 5500 students will come to our campus to learn to make solar study lamps from scratch. They will be made to sit in a group of 50 for which one trainer will be allotted. With so many students taking part in a workshop at the same time, we have a chance to get a Guinness World Records title. We went to 150 schools to invite them for the workshop. Students from around 118 schools got themselves registered. Almost 80 per cent schools are from Mumbai. We will provide a guidance kit to all students for which we have charged them minimal registration fees."

After the conclusion of the workshop, a concluding ceremony will be held which will see the presence of dignitaries like Anil Kakodkar, Former Director, Bhabha Atomic Research Centre, Vinod Tawde, Education Minister, Government of Maharashtra and Dr Ramanan R, Mission Director, Atal Innovation Mission, NITI Aayog.

Kiran Bedi urges IIT alumni to give back to the institute

https://www.thehindu.com/news/cities/puducherry/kiran-bedi-urges-iit-alumni-to-give-back-to-the-institute/article25093145.ece

Assn. represents over 50,000 alumni across 28 countries

Lieutenant Governor of Puducherry Kiran Bedi urged IIT alumni to make a commitment to contribute back to their institute.

“Every passing out student should commit to contribute back to the IIT as a contract.

The IITs and medical colleges are heavily subsidised, and it is only fair that students contribute back to the institute.

“If this had been done from the very first batch, IITs will have a corpus rivalling the MITs,” she said speaking at the conclave titled ‘Sangam – Confluence for Impact’ organised by The IIT Madras Alumni Association (IITMAA) to mark the diamond jubilee year of IIT-M.

Dr. Bedi said students should commit 0.5% of their salary from the day they start earning to give back to the institute and the corpus could be managed by the alumni associations with donors having a say.

Delivering a video message on the occasion, Professor Bhaskar Ramamurthi, Director IIT Madras, said, “This is a great year for us. This is the first big event being held to mark the diamond jubilee year. We have stood on the shoulders on the pioneering batches of students, faculty and alumni and have taken it to where it is today.”

“The association represents over 50,000 alumni across 28 countries and 1,700 cities. We are entering our 55th year. We have heard from our alumni that they want to re-connect with the institute, faculty and students and they want to give back to the institute and society for all the things they have benefited from,” said Shuba Kumar, president, IITMAA.

Anand Rangarajan, engineering director, Google; former Indian cricketer Anil Kumble; actor Rana Daggubati; Dr. Nachiket Mor, country director, Gates Foundation and Preetha Reddy, vice chairperson, Apollo Hospitals were the key speakers at the conclave.

UGC likely to ease teaching norms for direct PhD holders from IITs

https://www.hindustantimes.com/india-news/ugc-likely-to-ease-teaching-norms-for-direct-phd-holders-from-iits/story-nEwIMN8b9POmfFn1iuJVpM.html

IIT Kanpur professor Dheeraj Sanghi said it was an anomaly as PhD is a higher degree. “So if one has attained that why ask for a master’s? I am glad the UGC is looking into it.

The University Grants Commission (UGC) is likely to end norms that prevent candidates with direct PhDs from the Indian Institutes of Technology (IITs) after bachelor’s degrees from teaching at universities, people aware of the possibility said.

The University Grants Commission (UGC) is likely to end norms that prevent candidates with direct PhDs from the Indian Institutes of Technology (IITs) after bachelor’s degrees from teaching at universities, people aware of the possibility said.

Those, with direct PhDs after bachelor’s degrees, are eligible for jobs at IITs. But they are ineligible to teach at universities as assistant professors without master’s degrees.

The UGC has received several requests regarding the issue, which was taken up for discussion at its meeting on September 27.

A UGC official said the matter was discussed at length and it was decided to refer the issue to the anomaly committee before taking a final decision.

“The IITs are giving direct admission to BE/BTech (graduates) in the PhD programme, therefore the candidates who do PhD directly after BTech (which is also provided in the recently launched Prime Ministers Research Fellow scheme) do not possess a masters degree and hence are not eligible for appointment as Assistant professor in Indian universities as per UGC regulations.

This leads to an anomaly whereby a candidate become eligible for appointment as assistant professor in IITs/NITs but is not eligible to apply for appointment as assistant professor in the university system. This constitutes an anomaly,” read the agenda of the commission, a copy of which is with HT.

Another official said the UGC chairman had constituted a committee to address this issue in June.

The committee felt the issue was genuine. After examining the issue and studying the UGC regulations, norms of appointment followed by IITs and the All India Council for Technical Education, it recommended that UGC regulations be amended.

“The committee has suggested that for engineering and technology field apart from making having master’s (including the integrated five-year programme) with first class or equivalent CGPA in the appropriate branch of engineering as the eligibility criteria for appointment, it should also include another option of bachelor’s degree with first class or equivalent CGPA with a PhD degree in the appropriate branch of engineering and technology for the post of assistant professor in universities,” said another official.

IIT Kanpur professor Dheeraj Sanghi said it was an anomaly as PhD is a higher degree. “So if one has attained that why ask for a master’s? I am glad the UGC is looking into it. At the same time, the UGC should not prescribe norms. Rather universities should be free to come up with eligibility and regulations depending on their requirements.”

Even teachers must learn, says AICTE in latest policy

http://www.newindianexpress.com/states/telangana/2018/oct/01/even-teachers-must-learn-says-aicte-in-latest-policy-1879386.html

Balakrishna Reddy, President, Telangana Technical Institutions Employees Association finds the policy framework ‘more like a skeleton’.

The latest among a slew of measures undertaken by All India Council for Technical Education (AICTE) to revamp country's technical education is a policy designed to boost the competency of the faculty. AICTE has made it mandatory for all aspiring teachers, who want to teach at technical institutions, to undertake a semester-long teacher-training certification programme.

A person will not be hired to teach at any technical institution, like an engineering college, unless s/he undergoes this mandatory course under this policy which is scheduled to be implemented from this academic year.

The teaching community and institute management bodies have lauded the policy which, they say, will help new teachers in understanding how to formulate the lesson plans, lab and research work and also help the in-service teachers to upgrade their skill set, as the completing eight-module course is mandatory for receiving a promotion.

However, despite its good intentions, the policy is being criticised for not being specific enough especially about who will conduct the faculty development training and the mode in which it will be done. Moreover, as the current academic year has already begun, there is skepticism about its implementation from this year itself.

Balakrishna Reddy, President, Telangana Technical Institutions Employees Association finds the policy framework 'more like a skeleton'. "We don't know if the programme will be free or paid and what will be the kind of support colleges will provide. Furthermore, the said course requires around 45 days of a semester which will be difficult to allot because the academic year has already begun. It would be better if they revised the policy and implemented it from 2019 onward", he said.

Dr Srini Bhupalam, chairman, NRI Institute of Technology has already sent out notices to its teachers about the mandatory training programme. However, he finds the six-month training tedious for the existing faculty with their current workload of teaching and assessment and wants the duration extended to at least one year. "It would have been better if the direction had come during summer vacation," he added.
Meanwhile, the policy has brought some hope for senior faculty in engineering colleges that have faced mass layoffs in the past few months due to reduction in the teacher-student ratio from 1:20 to 1:15.

A lecturer who was shown the door by a top engineering college and is presently teaching at a second-tier college in Secunderabad at half of his previous pay, told Express that if the training is paid, mandatory and only for faculty falling in 0-5 years experience bracket, colleges might stop recruiting freshers and demand only those with ten-plus years of experience.

'Learning for teachers is lifelong'
Speaking at the Maulana Azad Urdu University last month, AICTE chairman, Prof Anil D Sahasrabudhe had emphasised that learning for teachers should be lifelong and mandatory for recruitment as well as their promotion. The policy document reads that the in-service training programme will be requirement-specific to the teachers, conducted at various levels of their career, but does not mention if it will be linked to giving out promotions.

'Universal human values' are priority

"Training in human values through an appropriate process of self-exploration happens to be the most important component of the training of teachers," the policy reads. After school teachers, faculty of technical institutions will are to absorb 'universal human values'.

Mixed feelings among students for latest induction program

Another new initiative AICTE introduced in the current year is that of a three-week long induction for freshers in technical institutions. While the regulatory body swears by its necessity, it has evoked a mixed response from students. Jameel Hussain, a first-year polytechnic student feels the time spent in induction programme which a large number of students give a miss after the initial few days could be put to better use if classes are conducted instead of the programme.

While the AICTE mandates the programme to be a combination of motivation talks, interactions with renowned persons, yoga, games, student-faculty interaction, field trips, etc., according to students the programme mostly involves 8-hours of listening to uninspiring lectures. TM Aravind, another student, found that the events where students were given a chance to speak were interesting. "It help me overcome stage fear and gave an opportunity to interact with fellow students and faculty also," he said.

September 30

In science, they trust

https://mumbaimirror.indiatimes.com/others/sunday-read/in-science-they-trust/articleshow/66011921.cms

DR AMIT AGRAWAL

Meet the winners of this year's Shanti Swarup Bhatnagar Prize for science and technology, who are studying everything from nanomotors to DNA damage.

The Shanti Swarup Bhatnagar Prize for Science and Technology is arguably the most coveted prize for science in India. Named after the founder Director of the Council of Scientific & Industrial Research (CSIR), the late Shanti Swarup Bhatnagar, the annual prize was first awarded in 1958.

The prize is open to any citizen of India under the age of 45 and who is conducting research in one of the following seven disciplines: Biological Sciences, Chemical Sciences, Earth, Atmosphere, Ocean and Planetary Sciences, Engineering Sciences, Mathematical Sciences, Medical Sciences and Physical Sciences. Each discipline can have up to two winners. prize is based primarily on research done in

India over the preceding five years and comes with a cash prize of Rs 5 lakh.

The work of this year's winners ranges from research into DNA damage and repair to drug-delivering nanomotors to CO2 capture and storage. Mirror spoke to 11 out of the 13 recipients (two were out of the country) to learn more about what's happening on the cutting edge of science in India.

DR AMIT AGRAWAL, 44,
Professor, Mechanical Engineering Department, IIT-Bombay
FIELDS OF RESEARCH: Microdevices and fluid dynamics
Dr Amit Agrawal has been working towards creating next-generation diagnostic micro-devices that will bring the hospital to the patient. "These should replicate exactly what can be done by the corresponding tools in labs," he says. One of the devices he has created allows plasma to be extracted from blood so that it can be used for further processing. The device is the size of a coin. Agrawal was also lauded for looking beyond the Navier-Stokes equations, which have been used to describe fluid flow for close to two centuries, even though they don't work very well in every situation — like in the case of aircraft flying at a very high altitude. "We set out to find solutions that are beyond Navier-Stokes and to propose our own equations — which we are testing. It could open the door to solving a host of fluid flow problems," Agrawal says.

SWADHIN KUMAR MANDAL, 44
Department of Chemical Sciences, IISER-Kolkata
FIELD OF RESEARCH: Developing sustainable chemical processes
"Any material, drug or synthetic fuel, involves chemistry, particularly chemical synthesis. To facilitate such a process, you need a catalyst and they are mainly based on heavy metals," says Dr Swadhin Mandal. Dr Mandal's work is geared towards developing non-toxic catalysts for various industrially important processes, and how these can be effectively used in both pharmaceutical and chemical industries. His work has shown how greenhouse gases like CO2, mainly responsible for global warming, can be converted into alternate fuel such as methanol under ambient conditions without using any metal-based catalysts. "Such a process can reduce the greenhouse gases from the atmosphere and can convert it into a high value product," says Dr Mandal.

DR. PARTHASARATHI CHAKRABORTY, 44
National Institute of Oceanography, Goa
FIELD OF RESEARCH: Metal-binding ligands in oceanic biogeochemistry
Dr. Parthasarathi Chakraborty's work involves trying to understand how traces of metal in the marine ecosystem affects its carbon cycles. According to the NIO, which Dr Chakraborty joined in 2008, he has "initiated a metal speciation study (after establishing the first metal-speciation laboratory in India… to realise the important role of metal-natural ligands interactions in controlling distribution, fate, mobility, and bioavailability of trace/heavy metals in marine environments (estuarine, coastal and open ocean)". The results of Chakraborty's research have been published in some 58 national and international journals of repute, and earned him a place, as associate member, on the Scientific Committee on Ocean Research Working Groups – a global body that tries to address

“interdisciplinary science questions about the ocean”.

GANESH NAGARAJU, 45,
Associate professor of biochemistry, IISc-Bengaluru
FIELD OF RESEARCH: DNA damage and repair pathways
From how idlis metabolise in our stomach to how diabetes debilitates our organs, biochemistry can answer anything about the human body. And Ganesh Nagaraju, an alumnus of Beth Israel Deaconess Medical Center and Harvard Medical School, is pushing the boundaries of biochemistry to save lives from cancer, fanconi anemia and several other genetic diseases. Nagaraju says that the body has its own mechanism to fix DNA damage to check genetic mutation. “We are interested in understanding the molecular mechanisms of DNA damage response, repair pathways and chromosome instability associated with genetic diseases and cancer.” Nagaraju’s lab is focused on the repair of DNA doublestrand breaks, considered to be the most dangerous of all the DNA damages. In 2016, his team was able to take a giant leap. They developed an anti-cancer agent along with the Department of Chemistry. “Now, we are looking to study this molecule at the next level, using mouse model system,” he says.

THOMAS PUCADYIL, 42
Indian Institute of Science Education and Research, Pune
FIELD OF RESEARCH: Biological sciences
Cell biologist Thomas Pucadyil has been researching the recreation of cell membrane systems and how they split. “The process of slicing the membrane into two is known as membrane fission. It’s like an ice cream on a stick. You can’t hold the stick and pull the stick out of the ice cream – the entire ice cream comes along. That’s essentially the same problem with membrane proteins. If you tug at the protein, the entire membrane bends in. So the only way you can transport these proteins is if you allow the membrane to bend in and cut the neck of the membrane,” says Pucadyil, describing the mechanism by which proteins are transported in cells packaged into vesicles. Control over membrane fission may hold the answers to how infections can be prevented with the possibility of creating vaccines, but there are no tangible results of his research at this stage, points out Pucadyil. Peers recognise Pucadyil, who was the only Indian scientist amongst 41 researchers from 16 countries to receive a grant from the Howard Hughes Medical Institute and Bill and Melinda Gates Foundation last year, as an international research scholar.

DR RAHUL BANERJEE, 45
Associate professor, IISER-Kolkata
FIELDS OF RESEARCH: Hydrogen storage, Co2 capture and methane storage
Dr Rahul Banerjee says that when hydrogen reacts with oxygen, it produces water – as well as energy. “This energy can be utilized to solve global energy problems, and we are working towards making new materials or compounds for hydrogen storage.” Dr Banerjee’s other focus areas include discovering materials which will sequester/filter carbon dioxide from the exhausts of vehicles, and he is working on creating a filter made from porous materials. “The porous nozzle will filter carbon and thus help solve the problem of pollution,” says Banerjee.

ASHWIN GUMASTE, 42
Associate professor, Department of Computer Science and Engineering, IIT Bombay
FIELD OF RESEARCH: Telecom
In 2010, Ashwin Gumaste built a bunch of products for the government, including carrier Ethernet switch routers – high-speed transport routers with a fully Indian design. “We had port-to-port latency of one microsecond across three layers of the telecom stack, whereas our competition – Chinese or Western – was at 100 microseconds. So, we were faster, which meant that energy consumption was lower, and cost points were competitive. We transferred the technology to Electronics Corporation of India in 2011 and we have since deployed it in multiple networks,” says Gumaste.
In April this year, he launched a much larger router, which was developed under funding from DRDO. “Our [nation’s] electronics import bill (which includes telecom) is higher than the oil import bill, and that was a matter of grave concern. So, the goal was to make indigenous products.”

DR. AMIT KUMAR, 42
Department of Computer Science and Engineering at IIT, Delhi
FIELDS OF RESEARCH: Combinatorial optimisation and graph theoretic algorithms
Simply put, Professor Amit Kumar’s work will help make problem-solving quicker in the real world. “We study fast algorithms for problems which have huge number of possible solutions but we want to pick out the best or optimal one. One needs to build new models and algorithms to understand this class of problems.” His peers at IIT say that Kumar’s work on algorithms is already being applied in the operation of data centers. “For example, when we search for something on Google, the search request goes to a server in a data center — how do we decide which data center and which server in it gets used to answer this query? How do we decide how soon to process this query because there could be many other such queries in the queue? Each server consumes lot of energy - in fact 2 percent of global energy goes into data centers. How do we do conserve energy while processing all these queries? All of these are applications where scheduling algorithms play a key role,” says his peer Professor Naveen Garg.

AMBARISH GHOSH, 44
Centre for Nano Science and Engineering (CeNSE), IISc-Bengaluru
FIELD OF RESEARCH: Nanomotors to improve drug delivery
What are nanomotors? These are tiny machines that can convert chemical or externally applied energy into mechanical motion. And what does Ghosh, an alumnus of IIT-Kharagpur, Brown University and Harvard University, want to use them for? “To deliver drugs to specific cells in human bodies, especially in cancer patients. For instance, when you inject the drug during chemotherapy, it goes everywhere and not just to the cancerous cells. Healthy cells get killed too. Now imagine if we can deliver the drug directly to the cancer cells, in a controlled manner, we can avoid all this.”
Thanks to his collaboration with chemists, biologists, and material scientists, his research is inching closer to reality. “We have developed a microscopic glass screw that can be used to target tissues using externally applied magnetic fields. It is noninvasive and doesn’t need a chemical fuel and that is why this technology is popular in the medical world.”

DR. NITIN SAXENA, 41
Associate Professor, IIT Kanpur

FIELD OF RESEARCH: Algebraic Complexity

Dr Nitin Saxena says he abstractly analyses computers using Algebra. “I use it to solve computer science problems. Along the way, this research creates a new kind of Mathematics that is beautiful and sometimes even practical. It is also called Arithmetic Circuit Complexity. In this area one solves certain problems faster, or proves that certain problems cannot be solved faster no matter how clever we are.” And how is his work applied in the real world? Algebraic Complexity, says Dr Saxena, is used in computers to store information and transmit it in a secure way. Many practical algorithms use some Algebra in their details. These include cryptography, errorcorrection, Machine Learning and graphic manipulation.

According to his peers, Dr Saxena’s work is significant, especially at a time when cryptography and cyber security are becoming very important.

MADINENI VENKAT RATNAM, 45

National Atmospheric Research Laboratory, Tirupathi

FIELD OF RESEARCH: Middle-atmosphere

Madineni Venkat Ratnam is invested in the study of middle-atmospheric structures and the sun-earth interactions. He is also part of an ISRO-NASA project studying the dense blanket of pollutants hanging 13 to 18 km above Asia. “Global warming and climate change is easier to measure in the middle atmosphere than on the Earth’s surface. For instance, the processes exchanged between the stratosphere and the troposphere have a direct link to climate change. When water vapour from the troposphere reacts with ozone in the stratosphere, it destroys the ozone, leading more UV rays to hit the Earth.” Scientists could perhaps use this lead to predict the future of the stratosphere, he says.

GANESAN VENKATASUBRAMANIAN, 43

NIMHANS, Bengaluru

FIELD OF RESEARCH: Schizophrenia and other psychiatric disorders

Researchers are trying to identify biomarkers (or molecules) that signal the underlying condition of a psychiatric disease, the knowledge of which is much more accessible in the case of heart diseases, for instance. That’s where Ganesan Venkatasubramanian comes in. He has been trying to understand psychiatric disorders through the lens of evolutionary biology of the human brain. Over the past decade, his research on schizophrenia has suggested a link between systemic immune-metabolic aberrations and brain deficits, and it can be used to identify newer pathogenic and possibly novel therapeutic avenues for schizophrenia.

DR ADITI SEN DE, 44

Associate Professor of Physics, Harish Chandra Research Institute

FIELD OF RESEARCH: Quantum Information and computation

Quantum information and computation, says Dr Sen De, is a science at the crossroads of physics, computer science, mathematics, and information theory. “It has been shown that the performance of communication can be enhanced by using channels that observe quantum mechanical laws. ” That means faster internet, of course, but quantum mechanics, says Dr Sen De, is also being put to use for national security. “We work closely with the Armed Forces. Say, there are two camps and messages have to be transmitted securely between them, for this quantum mechanical networks

can be used."

Mobile usage: Brain cancer on rise, people going deaf, says Mumbai IIT Prof

http://www.uniindia.com/mobile-usage-brain-cancer-on-rise-people-going-deaf-says-mumbai-iit-prof/india/news/1365353.html

There is no doubt that while on one hand cellphones have made our lives way easier by bringing the world on our fingertips, but lack of knowledge regarding proper usage of mobile handsets in India and worse, the dangerous electromagnetic radiation emitted from the mobile towers is much more than set international standard.

As a result, hundreds of people are paying the price of this 'technical advancement' every year. Findings of a new study point towards something even more sinister. According to the latest research, using cellphones for more than half an hour daily can double the risk of brain tumour in the next 10 years.

The crusader initiating a fight against radiation, Dr Girish Kumar -- professor in the department of Electrical Engineering of IIT Mumbai -- told UNI, 'I recently interacted with many renowned ENT specialists from different parts of the country and I have reached the conclusion that the cases of brain tumours and hearing loss are on the rise. All the contacted specialists have agreed to one common fact: that number of brain tumours and hearing loss cases are increasing day by day. I have published this report in my magazine."

The professor who has been working on hazards of microwave radiation for more than a decade, says, 'In my recent survey, most of the people have agreed to the fact that after talking on their cellphones for a longer duration of time they feel heat sensation in their ears. According to the reports, if we use cellphone for 20 to 30 minutes continuously, the radiations penetrate our body and the blood in our earlobes gets heated due to excessive radiation and heat emitted from cellphones. After that our blood temperature rise by one degree centigrade and thus our body temperature reaches 100.2 Fahrenheit. Apart from this, talking on the cellphone for more than half an hour daily can lead to a persistent headache issue and further final stage of brain tumour comes to the fore."

The former research associate in the Electrical Engineering Department, University of Winnipeg, Manitoba, Canada says, "we are extremely addicted to our cellphones and there are some serious repercussions of this habit. To make matters worse, we are constantly living under the threat of mobile towers and Wi-Fi which is the main reason behind the rise in brain tumour and other serious diseases. The number of cancer cases in India have been on the rise since 2003."

He further adds that a team of international scientists had conducted an 'inter-phone study' in which they had studied 5,117 cases of brain tumour. The final report of the study had come out in 2012 which concluded that talking on cellphones within the set limit of four minutes a day did not cause any trouble but spending 30 minutes or more talking can potentially double the risk of cancer after 10 years.

'We are addicted to cellphones and due to radiation from mobiles, Wi-Fi and cell tower, we are 24x7 exposed to dangerous electromagnetic radiation. Number of cancer cases are on increase since the year 2003,'he adds.

A team of international scientists conducted an inter phone study on 5,117 cases of brain tumours in 2000 and found that cellphone usage exceeding half hour upped our chances of developing cancer 100 per cent. It is on the basis of these findings that the World Health Organisation (WHO) declared electromagnetic radiation as ‘possible carcinogenic (cancerous) 2 B'.

Many European countries, including France and Spain, have banned the use of cellphones for children below the age of 12 years whereas in India we treat these phones as toys and hand them out to even toddlers. A team of international scientists has submitted a report that concluded that radiation has a dangerous effect on the tender brain membrane of infants. In fact, it is even more dangerous for the baby in mother’s womb.

Author of three books, Prof Kumar states, 'If the cellphone is put in the pocket of our trouser pants, the chances of becoming impotent become very high for both men and women. Case in point is how more youth are increasingly opting for in vitro fertilisation (IVF). The cell towers are emitting radiation 24 hours a day and people living in close proximity complain of irritation, loss of memory and cognitive powers, cancer, Alzheimers, impotency, high BP and depression.' The professor who has written more than 270 papers in the international and national journals and hass also filed five patents, stresssd that cellphone users must comply with guidelines which warn of use it from distance. The cellphone was introduced in 1985 and arrived in India exactly after ten years in 1995, and it could be said for mobile phones that “it came, it saw and it conquered."

He explains how in 2003 when incoming calls became free of cost and later the call rate became Re one a minute and mobile data could be accessed at dirt cheap rates, usage of mobile and other devices exploded.

Dr Kumar, who is also an active social activist and has written several reports and given presentations at various forums on the topic related to cellphones and tower radiation hazards and their solutions, informs,'we are completely trapped in the invisible spectrum. We were already under high radiation after the cellphone data became cheap and thanks to free access to Wi-Fi at various places, the situation has gone worse. A cellphone which was ideally meant to be used only in case of an emergency, is now being used for unlimited talking (remember, unlimited talk time plans?) and small kids have been given laptops, tablets and mobile phones to play with.'

Excess use of data, mushrooming of cell towers and the process of making towers more powerful, it's hard to imagine the condition of our children and youth in the next 10 years. Chairman of 'Wilcom Technologies Pvt Ltd', Prof Kumar informed, 'gradually we are heading towards the 'cursed dawn' where our children will be facing difficulty in becoming parents and the coming generations might never become grandparents.'

He also questions that by taking precautions while using mobile phones and other devices, we might be able to save ourselves from the radiation of cellphones but what about the radiation of cell tower which is far more injurious to health? Pointing out the dos and don’ts we must follow while using cellphones, he says that we must use a mobile phone that has specific absorption rate value (SAR) less than 1.66W/kg. As a rule of thumb, the lower the SAR value, the better it is. This happens because SAR is the direct measure of radiations, hence a lower SAR value should always be preferred. In order to know the SAR value of your device, simply type *#07# and dial. We must use handsfree and keep the phone on speaker mode if possible. It must be kept in mind that even while taking the above-

mentioned precautions, the device should lay on a table or kept inside a bag, otherwise the radiations could penetrate our body through our hands. Additionally, the Wi-Fi set should be kept at an isolated place or somewhere in our home where we spend less time.

It is advisable to switch off the WiFi whenever it is not in use. While most of us are in the habit of snoozing off with our mobile phones in our hands or under the pillow, it must be noted that they should be kept at least at one hand distance while sleeping. Mobile data should be turned off while going out and it is even better to keep the phone on flight mode. One must not use cellphones in vehicles, lifts or when the battery is less because, in these circumstances, mobile phones emit even more radiation than usual. Every six seconds your cellphone sends one pulse to the tower signalling its location. It basically means that cellphones work non-stop. While typing the message we are not in a direct contact with radiation but when we hit the button, radiation penetrates through our fingers.

Hence, handsets must be kept on the table while pressing send. Last but not least, when the cellphone rings -- due to call or messages --the radiation is much more powerful as the wave passes through several towers and switchboard. In this case, one should not immediately put the cellphone to the ear but must wait for a few seconds after pressing the green button, and then say “hello” to the “radiation”, the professor chuckles.

He avers that by making awareness and using safety norms, cellphone radiation could be controlled to some extent but the “tale of towers” is terrifying. In our country, we have implemented the standard of radiation of towers at our own convenience and simply ignored the norms of International commission on non-ionising radiation protection which is recommended by the United Nations itself. The range of radiation exposure suggested by the norms is six minute per day, but we have applied the same for one hour.

On September 1, 2012 the range of radiation was fixed for 450 milliwatts per square metre which are valued for one hour. Even if the range of radiation is one milliwatt per square metre in our houses, several health hazards could start manifesting within five years.

There is more radiation in the main beam of an antenna and because of this, the periphery of 100 to 300 metres is also not safe from radiation. However, this applies to towers with just one antenna, which is a rare sight these days. Nowadays, towers carry at least two to ten antenna. He explains, “I have toured Delhi for about 30 times since 2010 and have submitted reports of health hazards related to cellphone and cell tower to various departments and committees including the Department of Telecommunications (DoT). My constant endeavours were successful to some extent as in 2012 the radiation range was reduced by one-tenth of the earlier value, meaning it was now 450 milliwatts per square metre from 4050 milliwatts per square metre and was permissible only for an hour.

Expressing dismay, Dr Kumar says, “It was in December 2014 that I had submitted my presentation on the radiation to the concerned authority and after that my appointment is not being fixed with any of the entities dealing with radiation hazards.

‘International scientists say that to remain safe during our whole an of life cellphone tower radiation should be within the range of 0.1 milliwatts per square meter, whereas our demand is that the govt must reduce the radiation range of 450 to 10 milliwatt per square mette. In the urban areas of America, one antenna has the capacity of one watt whereas in India a single antenna has the capacity

of 20 watts. I have sent a report to the government in which I have suggested solutions to the hazards of radiation.

“Right now, there are around five to six lakh cell towers in India. First of all, the capacity of antennas should be reduced to one watt and after that almost six lakh new towers should be installed. One antenna costs around Rs 20 lakh but keeping the health of citizen’s in mind, money has to be spent without a second thought. The Supreme Court of India understands the hazards of radiation very well, this is why it has accepted the pleas of film star Juhi Chawla and several others in this regard. It will hear their case in November,' explains Dr Kumar.

'Cellphone has not just wreaked havoc on our health, but it has also marred the very social fabric. if I ever happen to see anyone without cellphones in their hands, I appreciate them." The professor sums up, 'This has been said a lot of times on different platforms that there are no health hazards from the cellphone tower but the vanishing of sparrows, butterflies and bees -- who are on the verge of extinction -- is the living proof of the adverse effect of radiation. It is affecting the tree and plants, equally."

Sharing an eye-opening anecdote he says, “During my survey, I met one the owner of a farmhouse in Gurugram. He shared an appalling story. The owner said that before the installation of cellphone tower the lemon tree right in front of the antenna used to bear almost a hundred lemons, but now it bears only two lemons.”

A pensive Dr Kumar warns that today we are surrounded with the radiation of cellphones, cell towers, Wi-Fi, microwave oven, computers, and laptops but then it is the younger generation which is more prone to the radiation as it has completely gone ‘online'.

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IIT-M will be on the next ‘eminence’ list: Bhaskar Ramamurthi

https://www.thehindu.com/education/colleges/iit-m-will-be-on-the-next-eminence-list-bhaskar-ramamurthi/article25084371.ece

‘Missed out of first list as only 3 public institutions were chosen’

Expressing confidence that the Indian Institute of Technology (IIT) Madras will be on the next list of “institutions of eminence”, its director, Bhaskar Ramamurthi, said the college did not make it to the

first one because just three public institutions were chosen and the QS rankings rather than the official NIRF rankings were used to compile it.

In an interview with The Hindu, Professor Ramamurthi said, “The empowered committee came up with a list of eight public institutions, which included IIT Madras. The government decided on only three public and three private institutions in the first instance. The UGC (University Grants Commission) decided the three on the basis of the QS rankings, where two other IITs were ahead of us. We wish they had used the official NIRF (National Institutional Ranking Framework) rankings instead.”

He said that IIT Madras would certainly be on the next list.

The empowered committee for selecting these institutions is headed by former Chief Election Commissioner N. Gopalaswami.

Asked whether the category of greenfield institutions, which are not yet born, should have been included in the list, the IIT-M director said, “The title eminence is misleading. Perhaps they wanted to break into the top gobal rankings. And private institutions say they can do much better with autonomy. The thought behind their selection was perhaps to give them that. Later, it was also decided to bring greenfield institutions after assessing their proposals. I agree on the nomenclature part. But the empowered committee is eminent and I am sure they knew what they were doing. They are the best persons to answer this question.”

‘Perception is reality’

Professor Ramamurthi added that breaking into the rankings did not require much on the part of even new institutions, as these were heavily survey-driven. “You can bring in some people and raise your ranking...” he said, adding that Germany and the U.S. did not care much for global rankings.

“However, perception is reality and there is no harm in trying to enhance our institutional rankings,” he said, adding that the “eminence” tag would add 20% to the budget of IIT Madras.

Difference in salary

Saying that the IITs had asked the Centre to permit them to hire regular rather than just contractual foreign faculty, Professor Ramamurthi said that there should be no difference in salary on the basis of nationality. “That will be unjust to some of our faculty, who have made us what we are without caring for high salaries. If at all we move towards differential salaries, these should be based on achievement rather than nationality.”

On the NIRF, he said it was a good, largely data-based ranking framework, but added that sometimes private institutions ranked higher on placements as their students got placed through the placement cell, which is taken into account, while many PhD students of IITs were placed through their guides.

IIT Bombay to be First Institution outside North America to Tie Up with IBM for AI Research

https://www.theindianwire.com/education/iit-bombay-first-institution-outside-north-america-tie-ibm-ai-research-77060/

India's IIT Bombay would be the first institution to team up with IBM for AI purposes

International Business Machines (IBM) and Indian Institute of Technology Bombay (IIT-B) have walked into an industry-academia partnership to forward into Artificial Intelligence (AI) research.

Through AI (Artificial Intelligence) Horizons Network, IIT-Bombay will collaborate its faculty and students with IBM researchers.

"Over its 20-year history, IBM Research-India has been at the forefront of research advances in technologies like AI and Blockchain. We have always had strong collaborations with leading academic institutions in India," Senior vice-president, Hybrid Cloud, and Director, IBM Research Arvind Krishna told Financial Express.

With this team up, IIT-B becomes the first institution, away from other nations and outside North America to collaborate with IBM for AI research.

Other institutes to team up with IBM

Massachusetts Institute of Technology (MIT), Renesselaer Polytechnic Institute, the University of Illinois Urbana-Champaign, the University of Michigan, Universite de Montreal, the University of Maryland at Baltimore County, the UC San Diego and the University of Massachusetts at Amherst are among other institutes which have teamed up with IBM for AI research.

Vast possibilities and their outcomes

At IIT Bombay, research teams will look into new techniques for representing information through documented files, graphs, charts and multimedia content in all format.

This will ensure in creating newer ideas and applications in the area of financial services, retail, and healthcare.

IITH, Swinburne University to offer Ph.D. programme in engineering, science

https://www.thehindubusinessline.com/news/education/iith-swinburne-university-to-offer-phd-programme/article25069068.ece

Indian Institute of Technology Hyderabad (IITH) has launched a research collaboration with Swinburne University of Technology, Australia. They will take up a partnered Ph.D. programme covering engineering, science, design and arts and humanities.

The collaboration will provide top international level research, focused on industry by combining the expertise of researchers in India and Australia while providing access to facilities in mutually identified key research areas.

Graham Goldsmith, Chancellor, Swinburne University of Technology, said, “This partnership is a true collaboration between our two institutions where we bring together our mutual strength in engineering, science, technology and design to undertake life-changing research and produce first-class graduates of the future.”

Both Swinburne University and IIT Hyderabad share common research strength in the space of manufacturing, smart cities, health innovation, digital innovation and data science.

IIT Hyderabad has an established and extensive collaborative network around the world, including with universities in Japan, US, Australia, Canada, Europe and Taiwan. It also has three technology incubators – ITIC, Centre for Healthcare Entrepreneurship and Fabless Chip Design Incubator with 10 incubated companies.

U B Desai, Director, IITH, said students will have the opportunity to be jointly supervised by both universities while working on industry projects. There are already 23 students enrolled for programme with the number expected to grow many fold in the years to come.