Engineer's Day 2017: Best Engineering Institutes in India; IITs Top National and Global Rankings


There are over 6500 engineering institutes in the country which cater to the demands of education in engineering. Out of these thousands of institutes there are some which have surpassed the standards of teaching and have established their dominance as the best engineering institutes in the country.

NEW DELHI: India celebrates Engineer's Day today. Engineer's Day is celebrated to mark the birth anniversary of M. Visvesvaraya. The extent to which Engineering as a discipline of study is popular can be estimated from the fact that more than 11 lakh students registered for the JEE Main exam this year and more than 10 lakh appeared for the exam. When it comes to undergraduate enrolment percentage Engineering and Technology as a discipline comes second with 15.89% enrolment in 2011.

There are over 6500 engineering institutes in the country which cater to the demands of education in engineering. Out of these thousands of institutes there are some which have surpassed the standards of teaching and have established their dominance as the best engineering institutes in the country. On Engineer's Day, let us have a look at some of these engineering institutes which not only provide the best quality education but have also produced some exemplary and illustrious alumni over the years.

NIRF Ranking 2017

NIRF was approved by the MHRD and launched by then Minister of Human Resource Development on 29th September 2015. This framework outlines a methodology to rank institutions across India. India Rankings - 2016 based on this framework were released on 4th April 2016 and this was the first edition of NIRF. The NIRF ranking for 2017 was revealed in April this year and according to the rankings, the top 10 engineering institutes in the country are:

1. Indian Institute of Technology (IIT), Madras
2. Indian Institute of Technology (IIT), Bombay
3. Indian Institute of Technology (IIT), Kharagpur
4. Indian Institute of Technology (IIT), Delhi
5. Indian Institute of Technology (IIT), Kanpur
6. Indian Institute of Technology (IIT), Roorkee
7. Indian Institute of Technology (IIT), Guwahati
8. Anna University, Chennai
9. Jadavpur University
10. Indian Institute of Technology (IIT), Hyderabad

**QS World University Ranking 2018**

Now, coming to global rankings, based on the latest QS Top Universities Ranking, 9 Indian institutes and universities feature in the top 400 Engineering institutes across the world with a very curious and unlikely candidate making an unexpected entrance in the list. These 9 institutes are:

1. Indian Institute of Technology, Delhi (Global rank 71)
2. Indian Institute of Technology, Bombay (Global rank 78)
3. Indian Institute of Science (IISc), Bangalore (Global rank 107)
4. Indian Institute of Technology, Madras (Global rank 110)
5. Indian Institute of Technology, Kanpur (Global rank 129)
6. Indian Institute of Technology, Kharagpur (Global rank 150)
7. Indian Institute of Technology, Roorkee (Global rank 231)
8. Indian Institute of Technology, Guwahati (Global rank 332)
9. University of Delhi (Global rank 395)

**Save water and electricity, promote cleanliness and manage waste for Smart Campus - Shri Prakash Javadekar**


New Delhi, Sep 14: An award ceremony based on ‘SWACHHTA’ Ranking 2017 of Higher Educational Institutions was held in New Delhi today. Union Human Resource Development Minister, Shri Prakash Javadekar gave away the prizes to the awardees.

Shri Prakash Javadekar congratulated the awardees of ‘SWACHHTA’ Ranking- 2017 of Higher Educational Institutions. Speaking on the occasion, the Minister said that the Swachh Bharat Abhiyan is the most significant cleanliness campaign by the Government of India. Under this mission more than four crore and eighty lakhs toilets were constructed in India since 2nd October, 2014 and more than two lakhs villages are now open defecation free.

The Minister said the students are cleanliness ambassadors and along with the support of people and institutions they will lead the vision of Clean India of our Prime Minister Shri Narendra Modi. He also said to make Higher Educational Institutions a smart campus, we should focus on cleanliness as well as waste management. Save water, save electricity, promote cleanliness and manage waste to become smart campus. Shri Javadekar praised the efforts made by the various departments of Ministry of HRD for organising such ranking system which is in line with Swachh Bharat Mission and contributing toward a cleaner India. He said, we should participate in these programmes to inform others too.

An exercise to rank Higher Educational Institutions (HEIs) on the basis of cleanliness and hygiene has been undertaken and concluded. Parameters for a clean campus were formulated, like
The overall cleanliness of HEIs is assessed based on various factors such as student/toilet ratio, kitchen hygiene, availability of running water, modernity of toilet & kitchen equipment, campus green cover, garbage disposal in hostels and academic buildings, disposal techniques, water supply systems and also a certain weightage to whether the institutions has adopted any neighbouring locality or village to spread awareness & activities in Swachhta.

About 3500 HEIs responded to the online invitation, submitting all their details as per format. The top 174 institutions were shortlisted as per criteria and officials from UGC and AICTE inspected the premises of all 174 institutions. Finally, the top 25 institutions across various categories like Universities, Technical Institutions, Colleges and Government institutions were selected and they were awarded on the occasion. This exercise will help generate peer pressure amongst institutions in the all-important area of cleanliness.

Clusters of villages have been adopted by certain HEIs under the Unnat Bharat Abhiyan programme in consultation with District Collectors. All Collectors and HEIs under the programme were invited to participate in the Best Collector & HEI Award by converting, before 31st August 2017, One Village into Open Defecation Free, with solid and liquid waste facility. Many participated in the exercise and finally, 5 districts completed the exercise - Medak, Jhabua, Warangal, Ajmer and Indore. The Collectors made presentations in MHRD on 5th September 2017 on their achievement. Those 5 Collectors along with the HEIs assisting them were awarded on the occasion.

Among the dignitaries Shri K.K Sharma Secretary, Department of Higher Education, Shri V.L.V.S.S. Subba Rao, Economic Advisor MHRD, Sh. Anil D. Sahasrabudhe, Chairman AICTE, Dr. V.S. Chauhan, Chairman UGC, Dr. Manpreet Singh Manna, Director AICTE were present on the occasion. Shri R. Subrahmanyam Additional Secretary (Technical Education) gave vote of thanks on the occasion.

List of Institutions awarded on Swachhata Rankings

University

1. O. P. Jindal Global University, Sonipat
   Sonipat
   Haryana

2. MANIPAL UNIVERSITY, JAIPUR
   Jaipur
   Rajasthan

3. Chitkara University, Kalu Jhanda (Barotiwal), Solan
   Solan
   HP

4. K.L.E. Academy of Higher Education and Research, Belgaum
   Belgaum
   Karnataka
5. Dayalbagh Educational Institute, Agra
Agra
UP

Colleges

1. Kongu Arts and Science College
   Erode
   TN

2. Vidya Pratishthans Arts, Commerce & Science College, M.I.D.C.Baramati, Pune 413100
   Pune
   Maharashtra

3. RAMAKRISHNA MISSION VIVEKANANDA COLLEGE
   Chennai
   TN

4. Vivekanandha College of Arts & Science (W)
   Tiruchengode
   TN

5. S N R Sons College
   Coimbatore
   TN

6. K.G. College of Arts and Science
   Coimbatore
   TN

Technical institutions

1. Amrita Vishwa Vidyapeetham, Coimbatore
   Coimbatore
   TN

2. Koneru Lakshmaiah Education Foundation, Guntur
   Guntur
   AP

3. Sri Ramachandra Medical College and Research Institute, Chennai
   Chennai
   TN
4. Vivekanandha College of Engineering for Women
   Tiruchengode
   TN

5. R.M.D Engineering College
   Chennai
   TN

6. R.M.K Engineering College
   Chennai
   TN

7. ABES INSTITUTE OF TECHNOLOGY, GHAZIABAD
   Ghaziabad
   UP

Government institutions

1. G.B. Pant University of Agriculture and Technology,
   Pantnagar
   UK

2. Madurai Kamraj University,
   Madurai
   TN

3. Alagappa University, Alagappa Nagar,
   Karaikudi
   TN

4. National Institute of Technology,
   Hamirpur
   HP

5. Indian Institute of Technology,
   Guwahati
   Assam

6. Govt Post-graduate College for Girls, Sector-11
   Chandigarh
   UT

7. Punjab University
   Chandigarh
   Punjab
IITH bags MHRD’s Swacchta Award

For uplifting villages under Unnat Bharat Abhiyan

In recognition of the role of Indian Institute of Technology, Hyderabad (IITH), in uplifting the villages under Unnat Bharat Abhiyan (UBA) initiative, the Union Ministry of Human Resource Development (MHRD) presented Swacchta Award to the institute on Thursday. The award, presented by HRD Minister Prakash Javadekar, was received by Medak Collector Bharti Hollikeri and IITH professor Sashidhar.

As part of the UBA, the IITH, under the guidance of Prof. Shashidhar from department of civil engineering adopted five villages belonging to the members of Scheduled Tribe communities. The villages include Bujarampet, Ananthram, Kannaram, Salabhatpur and Mohamed Nagar in Kowidipally mandal in Medak district. Speaking after receiving the award, Prof. Shashidhar said, “The Unnat Bharat Abhiyan gives an opportunity to understand challenges at the gross-root level. As a technical institute, we should not only work with mind, but with heart for sustainable village development.”

The IITH, with the support of Ms. Hollikeri, conducted an extensive socio-economic survey of villages to identify the grass-root issues. Spatial and non-spatial information were mapped with the help of Differential Global Positioning System (DGPS) survey.

During field visits, it was noted that despite heavy rains in 2016 that recharged the lakes and other water bodies in and around Kowdipally, there was negligible control over the usage and preservation of water among farmers and villagers. As a result, the groundwater level in these villages had gone down by the end of February and most bore-wells had become dry. The people in these villages faced acute drinking water scarcity.

To overcome these challenges, the IITH initiated a hydrogeological study to identify and demarcate groundwater bearing and recharge zones. Two-dimensional Electrical Resistivity Tomography (ERT) survey was conducted in the adopted villages.

Also, groundwater quality analysis was carried out for the samples collected from various bore-wells in the adopted villages. It was observed that most of the groundwater samples showed fluoride level between 6-1.8 ppm, which was above the permissible levels. Soil samples from agriculture fields were collected and analysed.

Cancellation of FCRA registration won’t impact us: PU

Panjab University (PU) on Thursday clarified that reported cancellation under the Foreign Contribution Regulation Act (FCRA), 2010, would not impact them.
The PU is yet to receive any communication from the Ministry of Home Affairs so far. Finance and Development Officer Vikram Nayyar said, “After 2011, those institutions whose accounts are audited by CAG need not have the FCRA registration. The issue of submitting annual returns of previous years only related to period before 2011.”

Along with the PU, registration of many other institutions like Jawaharlal Nehru University (JNU), Delhi University (DU) and IIT, Delhi, have also been cancelled. The Ministry of Home Affairs has given the reason that these institutes did not submit the returns of previous years. But the FDO said the registration might have been cancelled as it was needed at all. Two years ago too, the PU’s registration was revoked and it submitted the annual returns of previous years to the Ministry of Home Affairs. The varsity had received foreign contribution of Rs 4.30 lakh in 2009-10 and Rs 2 lakh in 2010-11 while no foreign contribution was received during the financial year 2011-12, 2012-13 and 2013-14.

**September 14**

**UGC’s approved journal list has 111 more predatory journals**

http://www.thehindu.com/sci-tech/science/ugcs-approved-journal-list-has-111-more-predatory-journals/article19677830.ece

The University Grants Commission’s (UGC) approved list of journals or white list appears more grey than white.

In June this year, the UGC released a revised list of 33,112 approved journals in which university/college faculty and students may publish papers. It has now come to light that UGC’s revised list contains 111 potential predatory or fraudulent journals.

Last week, *The Hindu* reported that the revised list contains 84 predatory journals that are found in librarian Jeffrey Beall’s (University of Colorado, Denver) list of “potential, possible, or probable” predatory journals, bringing the total to 195.

The journals from the UGC white list (45,925, including inactive journals at ugc.ac.in) were “web-scraped” and individually “string-matched” with the list of journals in the Directory of Open Access Journals (DOAJ) flagged as “suspected editorial misconduct by publisher”.

Earlier, the same list was compared with Mr. Beall’s list. An exact string match between the names of journals in the lists was taken as the criteria to flag the journal as predatory.

Of the 586 journals that the DOAJ had recently removed from its directory on grounds of “suspected editorial misconduct by publisher”, the UGC list contains 114. Three of the 114 journals have an overlap with Mr. Beall’s list.

By all accounts, the probability of the revised list containing more predatory journals cannot be ruled out. For instance, the UGC list has included some journals, which have all the tell-tale signs of predatory journals. They are neither found in Mr. Beall’s list nor are they among the DOAJ’s rejected journals.
Malpractices aplenty

A few of the predatory journals that have been removed from the DOAJ database want the authors to assign copyright to the journals, which goes against the grain of open access, while a few others offer an e-certificate to authors of published papers and a hard copy of the certificate for a fee.

One journal also offers authors a unique payment option — by paying a registration fee of ₹3,000, authors will be allowed to publish multiple articles without paying any article processing charge. Most journals have fake impact factors (an indicator of importance of the journal in the field).

In a sting operation in late 2012, a “mundane paper with grave errors” was sent to 167 journals included in the DOAJ database and 121 from Mr. Beall’s list. While 82% publishers in Mr. Beall’s list accepted the questionable paper, nearly 45% of DOAJ publishers did not reject the paper.

About six months after the results of the sting operation were published in October 2013 in the journal Science, the DOAJ began its mammoth exercise of removing the bad apples. The DOAJ has cleaned up its database by removing nearly 3,800 journals.

Following the introduction of new criteria for listing in March 2014, DOAJ has received 1,600 applications from Open Access journal publishers in India, which is the “highest number” in the world.

But of the 1,600, only 4% (74) were from genuine journal publishers and accepted for inclusion in the DOAJ directory.

Academics for subject-wise categorisation of UGC-approved journals

Universities face difficulties due to non-categorisation


Although the University Grants Commission (UGC) has prepared a revised approved list of journals that needs to be considered for appointment and promotion of teaching faculty, academics here say there are still difficulties in going about the task.

Recommendations for 7,255 additional journal titles were received from 141 universities during the second phase of opening of the ‘recommendation platform’ between June 16 and 22. All recommended journal titles were subjected to a checklist devised by the UGC Standing Committee. After the removal of journals that were of poor quality, duplicates and failed to fulfil the criteria, 2,407 unique journal titles were included in the UGC-approved list.

During the first phase, more than 800 journal titles of poor quality were removed by the Standing Committee from the list of 6,507 journals on the basis of feedback from individuals and institutions.

However, universities and colleges say difficulties persist because the journal titles have not been categorised subject-wise for reference at the time of approving teachers for the Career Advancement Scheme (CAS) and Direct Recruitment of Teachers and other academic staff as required under the UGC (minimum qualifications for appointment of teachers and other academic staff in universities and colleges) Regulation, 2016.
The UGC-approved list of journals consists of those indexed in WoS (Science Citation Index, Social Science Citation Index and Arts and Humanities Citation Index); journals indexed in Scopus; journals indexed in Indian Citation Index; journals recommended by the Members of the UGC Standing Committee and Language Committee; and journals recommended by the universities during the two phases.

“The UGC crackdown on predatory journals has been long overdue. There have been many instances of teachers securing promotion based on publication of their papers in fake and predatory journals,” a senior professor of Bharathidasan University said, adding that journals started after 2000 needed to be scrutinised thoroughly.

At present, the UGC has instructed the academic community to route complaints about predatory, fake or questionable journals found in the UGC-approved list through universities or through research guide or faculty in a university.

It has given an opportunity to universities to double-check their recommendations and pass on the information about the ISSN/EISSN number, publisher’s name and remarks, in case an undeserving journal has been inadvertently included in the list submitted by them.

**IIT-Bombay sees 1,114 job offers at average salary of Rs11.41 lakh**


**Over 300 companies took part in the 2016-17 placement season at IIT Bombay (IIT-B), where 1,114 jobs were offered with an average gross salary of Rs11.41 lakh per annum**

Over 300 companies, including top-notch MNCs, took part in the 2016-17 placement season at IIT Bombay (IIT-B), where 1,114 jobs were offered with an average gross salary of Rs11.41 lakh per annum.

Companies recruited across all profiles, including core engineering, research & development, consulting, analytics and software, IIT-B said in a statement on Wednesday. Carried out in two phases, the placement season 2016-17 saw participation from 305 recruiters.

A total of 1,114 jobs were offered to students with an average gross salary of Rs11.41 lakh a year, the leading technology institute said.

Major recruiters included Airbus Group, Bain & Company, Boston Consulting Group, Google, Goldman Sachs, Intel, Microsoft, ONGC, Procter & Gamble, Samsung R&D, Texas Instruments, Tata Steel and Qualcomm, among others.

Companies from countries like Japan and Singapore were amongst the top international recruiters. Some of the international recruiters were Murata Group Japan, NEC Japan and Schlumberger Asia Services, among others, the statement said.

A total of 32 research & development organisations offered 118 positions this year.
IIT-Bombay observed an increase in organisations hiring fresh graduates in the R&D sector, it said.

The season saw a total of 67 international offers made from companies and 59 pre-placement offers were accepted by students, it added.

Over the course of the past few years, internships have also become popular, giving students an understanding about various roles within a particular industry and helped them to select a well-informed career choice, the statement said.

The internship season witnessed 1,107 internship offers from over 650 organisations, it added.

**IIT Kharagpur students bag over 200 pre-placement offers from top MNCs**

http://indianexpress.com/article/jobs/iit-kharagpur-students-bag-over-200-pre-placement-offers-from-top-mncs/

**Offers have been pouring for final year students as an outcome of internships which the students went for during the summer recess.**

In this year’s IIT Kharagpur pre-placement, students bagged over 200 offers at the top MNCs for the first time. Companies like Goldman Sachs, Samsung, Qualcomm, Texas Instruments, Adobe Systems, Wipro have given more than 10 offers each, an IIT Kharagpur spokesperson said today. The placement season will begin on December 1, 2017.

Offers have been pouring for final year students as an outcome of internships which the students went for during the summer recess.

“This is an encouraging sign for us that companies recognise our students’ hard work and motivation during the internship”, said Prof Debasis Deb, in-charge of the Career Development Centre at IIT Kharagpur. As per the professor, there were many factors that contributed to the high demand of the students. There are wide choices in course curriculum available through flexible academic programmes, dedicated and experienced faculty strength and a strong presence of the alumni across most of recruiting organisations.

As per the professor, there were many factors that contributed to the high demand of the students. There are wide choices in course curriculum available through flexible academic programmes, dedicated and experienced faculty strength and a strong presence of the alumni across most of recruiting organisations. The Institute has also received more than 200 internship offers for the pre-final year students for the summer of 2018.

On Wednesday, IIT Bombay too released their placement report with nearly 1114 jobs were offered by a total of 305 recruiters. The average gross salary stands at Rs 11.41 lakh per annum. The season saw a total 67 international offers made from companies and 59 pre-placement offers were accepted by students.
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Centre launches crackdown, bans JNU, IIT Delhi, DU, IGNOU, others from receiving foreign funds


The registration of these institutions under the Foreign Contribution Regulation Act, 2010 (FCRA) has been cancelled by the Union Home Ministry as these have failed to file their annual returns for five consecutive years.

Prominent academic institutions like JNU, Delhi University, IIT Delhi, ICAR besides Supreme Court Bar Association are among several hundred organisations barred by the Centre from receiving foreign funds. The registration of these institutions under the Foreign Contribution Regulation Act, 2010 (FCRA) has been cancelled by the Union Home Ministry as these have failed to file their annual returns for five consecutive years. No organisation is allowed to receive funds from abroad unless it is registered under the FCRA. It is mandatory under the law for such organisations to submit income and expenditure statement to the government annually else their registration is cancelled. Among the institutions whose FCRA licence have been cancelled include Jawaharlal Nehru University, University Of Delhi, Indira Gandhi National Open University, Indian Institute Of Technology, Delhi, Panjab University, Indian Council Of Agricultural Research, Gargi College, Delhi and Lady Irwin College, Delhi, according to the documents accessed by PTI.

Other organisations whose FCRA registration were cancelled include Supreme Court Bar Association, Escorts Heart Institute and Research Centre, Gandhi Peace Foundation, Nehru Yuva Kendra Sangathan, Armed Forces Flag Day Fund, School Of Planning & Architecture, Delhi and FICCI Socio Economic Development Foundation. The Doon School Old Boys Association, Sri Guru Tegh Bahadur Khalsa College, Delhi, Dr. Zakir Hussain Memorial Trust, Dr Ram Monohar Lohia International Trust, Co-ordinating Voluntary Adoption Resource Agency have also been barred from receiving donations from abroad and their FCRA registrations cancelled.

The FCRA registration of the Bombay Diocesan Society, Rajiv Gandhi University of Health Sciences, Karnataka, Indira Gandhi Institute of Child Health, Bangalore, Shri Mahatma Gandhi Charitable Trust, Gujarat and Sri Satya Sai Trust were also cancelled by the home ministry. The action came after the organisations failed to file the returns for five consecutive years, 2010-11 to 2014-15, despite serving repeated notices, a home ministry official said. In May, as a one-time measure, all NGOs were given an opportunity for one month to file their missing annual returns by June 14 without paying any penalty. Email and SMS alerts were also sent to them regularly for one month beginning mid-May, the official said. The organisations were asked to furnish their replies, if any, by July 23, failing which, the ministry had said, it would be presumed that they have nothing to say and action as proposed would be taken as per FCRA. According to the FCRA, the renewal of registration for receiving foreign funds cannot be granted unless the annual returns are uploaded on the FCRA website by the organisation.
IIT Director unhappy with scrapping of new funding scheme

Ambitious scheme that earmarked Rs1, 250 cr each for top IITs shot down by Finance Ministry

V. Ramgopal Rao, Director of the Indian Institute of Technology (IIT), Delhi, on Tuesday expressed disappointment that the ambitious Vishwajeet scheme of the Union government had become a non-starter.

The scheme, which entailed the provision of Rs. 1,250 crore to each of the top seven IITs over a period of five years to upgrade infrastructure, hire foreign faculty, and collaborate with foreign institutions to break into the top league in global rankings, has reportedly been shot down by the Finance Ministry.

Mr. Rao expressed his disappointment over the scheme’s failure in the presence of Union Human Resource Development Minister Prakash Javadekar at a function in the IIT, Delhi.

“Since the Minister is here, I must also tell him that we are a little disappointed that the Vishwajeet proposal did not go through…,” Mr Rao said in his address. “The Vishwajeet scheme was something we were desperately looking for — at least the older, top five or seven IITs were banking on it. We are already in the top 500. With a little bit of push from the government, we could make it to the top 100. The structures are there, the processes are there. All we need is an intervention in terms of financial resources.”

He said he was confident that the IIT, Delhi would break into the top 100 in three or four years with schemes such as Vishwajeet. “I hope that we will want [this] to happen … We would like see the initiative taken up, and we are sure that it will happen under the current dispensation,” he added.

None of the IITs are currently ranked in the world’s top 350, as per the 14th edition of the Times Higher Education’s World University Rankings.

Responding to Mr. Rao’s comment in his speech, Mr. Javadekar said the Higher Education Finance Agency (HEFA), the Uchchatar Avishkar Yojana, and the Prime Minister’s proposed scholarships of ₹75,000 a month were schemes to be benefited from.

“You talked about Vishwajeet but we have already started three major things like Vishwajeet through other agencies. Higher Education Finance Agency is already operational. We are leveraging ₹2,000 crore of budgetary support in the debt market and creating ₹20,000 crore of funding. We are doing this to create the best research infrastructure in the higher education sector. Therefore you should be the first to demand money from HEFA. Yes, it has to be repaid but you repay it without interest. That’s a great thing,” Mr. Javadekar said.
He added, “There is also the Ucchatar Avishkar Yojana. You must go to various industries and bring them to your campus. They will invest at least ₹2-3 crores annually in research excellence centres. Then there are the PM scholarships too.”

'Focus on research can make us world leader in renewable energy'

Union Human Resource Development (HRD) Minister Prakash Javadekar on Tuesday said that if India invests enough in research, it can be the world leader in renewable energy.

"If we invest in research in renewable energy we can be world leaders," he said, adding that China had taken a lead in the field and "are 10 years ahead of us and the biggest suppliers of renewable panels and machines".

"An American professor recently told me that our country is ahead of them in renewable energy. We need to (invest in) everything -- hardware, software," Javadekar said at the opening of the Sumant Sinha Renew Centre of Excellence -- a hub for renewable energy research at the Indian Institute of Technology (IIT) Delhi.

The centre has been set up with funding from IIT alumnus and entrepreneur Sumant Sinha, son of former Finance Minister Yashwant Sinha and brother of Minister of State for Civil Aviation Jayant Sinha. He set up Renew Power, focused on renewables, in 2011.

The minister said that science and innovation are a continuous process and there is never a moment when one can say this is the last day of research.

He said when Prime Minister Narendra Modi announced a 100GW target for solar energy, everyone was shocked and said it was impossible.

"We started our journey with solar power and renewable energy with Rs 19 per unit... now it has come down to below four rupees. We have made tremendous progress in renewables. And as the demand grows, prices come down. This is what happened to LEDs," Javadekar said.

He said that the research centre was an excellent example of alumni giving back to their institutes and praised Sinha for setting up a centre where IIT students will get hands-on research experience.

IIT Delhi Director Ramgopal Rao acknowledged the contribution of alumni who have been investing in their alma mater in various ways and said that in the last one year, the institute has seen an almost 100 per cent increase in the sponsored research.

"The increased investment has shown in the improved ranking of the institute, which was ranked 172 in QS World Ranking this year," Rao said.

Hoping to be ranked in the top 100 institutes of learning in the future soon, he said that three other similar centres of excellence were in the pipeline in collaboration with the Defence Research and
The Union Cabinet will soon give its nod to Rs 75,000 monthly scholarship scheme for bright students in higher education institutes to arrest brain drain and encourage innovation, Human Resource Development Minister Prakash Javadekar on Tuesday said. The scholarship, the minister said, is meant for bright sparks at institutes like IITs and universities where required infrastructure is being provided under the Vishwajeet project and Uchchar Avishkar Yojana.

"We are also starting PM Scholarship. I have already signed the Cabinet note. That is under circulations. It will come to the Cabinet very soon," Javadekar said after inaugurating 'Sumant Sinha ReNew Centre of Excellence (CoE) for Energy and Environment' at the Indian Institute of Technology (IIT) here. The minister further said the scholarship will be for the best of the best brains who innovate. "It will be Rs 75,000 per month scholarship, which would be given to 1,000 students (in higher education institutes and universities). Rs 75,000 per month (per head) is not a small thing. This is happening first time in India. I want to stop the brain drain," Javadekar asserted. The minister expressed hope that this will further push Make in India and help retain talent in the country. He expressed confidence that the proportion of girl students in IITs will increase to 20 per cent by 2022, from the current 8 per cent.

The rationale behind the CoE is to establish a world-class research and development facility to develop cutting-edge renewable energy solutions. It is expected to foster exchange of ideas among the industry, the academia and policy makers from across the world to promote faster adoption of renewable energy. Besides, it looks to offer research and internship opportunities for undergraduate, postgraduate and Ph.D students in the industry. Developing research reports on renewable energy policy also forms part of the mandate. The CoE is carrying out research in three broad fields -- integration of large scale solar rooftop capacity with the electricity distribution network using battery storage technology, strengthening of the transmission grid to accommodate flow of renewable energy and development of charging infrastructure for electric vehicles. Chairman and CEO, ReNew Power, Sumant Sinha told reporters that the CoE would also take up more research projects in addition to the three in-hand projects. Professor V Ramagopal Rao, Director, IIT Delhi, said: "The CoE will bring together knowledge and research on clean energy, facilitate clean energy investments, and help deploy clean energy technology solutions to establish India as a rising leader in the world of renewable energy."
It will take 24 months and Rs 100 crore to manage city's landfills: IIT-Delhi


Indian Institute of Technology Delhi has presented a four-stage long-term solution for management of landfill sites to Delhi government - starting with flattening the mounds to extracting leachate and gas, to the final stage of capping them aesthetically. After the Ghazipur sanitary landfill site accident, in which two people died after a section of the garbage mound collapsed on September 1, lieutenant governor Anil Baijal had sought advice from experts in a meeting attended by chief minister Arvind Kejriwal and municipal corporation officials.

Professor Manoj Datta, head of IIT-D civil engineering department, shared the plan with TOI and said that managing one landfill will take 24 months or more and would cost around Rs 100 crore.

All the three landfills - Okhla, Ghazipur and Bhalswa - are pretty high (over 50 metres), while the permissible height is 15-20 metres. "The slopes are pretty steep because the waste is tipped over by the trucks and then pushed over by a bulldozer. The factor of safety is 1. Any external trigger, like an earthquake, excessive rainfall or seepage, can cause these slopes to become unstable," said Datta.

"The simplest solution is to make the slopes flatter so they won't fall. But flatter slopes also reduce the capacity," Datta added.

The four-stage solution includes flattening the slope, leachate and gas extraction, toe stabilisation and long-term capping. "When rainwater goes into the waste, it would want to come out. This can destabilise the slopes. The way to tackle this is leachate extraction wells. If wells are put up, instead of leachate coming down the slopes they can be pumped out and the pressure will go down," Datta said.

"Also, if there is some gas churning inside because of biodegradation, we can also use gas wells. The third solution is strengthening the toe of the slope by various techniques, like making an embankment. The final solution is long-term capping," the professor added.

Datta, however, said that the authorities need to be sensitised that the slope cannot be stabilised within a week. "We can't put a wall and say that the slopes are stable and that people of Ghazipur are now safe. Capping of Bhalswa may cost over Rs 100 crore and the time to execute the project will be 18 to 24 months," he added.

The expert also presented the example of the Gorai landfill of Mumbai. "Eventually, the landfills will have to be capped in a technical way. Gorai had been capped. It was 20 metres high and soon rose to a height of 35 metres. In 2009-10, technology involving leachate and gas wells, flat slopes and vertical cutoff walls was used to make the landfill safe," Datta said.

"We have accumulated this waste over so much time that we need a huge budget to cap the
landfills. We also have to stop gas collection to eliminate fire. There is no fire at Gorai and it will never happen again because ethane has been taken out and flared," the professor added.

**Modi govt’s 2022 agenda: 33 per cent of IIT students must be women**


Department of Science and Technology to hold camps at district level to coach 50,000 senior secondary girls for IIT JEE, as well as convince parents.

By the 75th year of Indian independence, one-third of students across Indian Institutes of Technology (IIT) should be women.

That’s the aim for the Narendra Modi government moving forward, in its mission to empower the country’s female population and rectify the gender imbalance across top science and engineering institutes.

The Department of Science & Technology (DST) has begun moving on the ambitious plan to train over 50,000 girls for two years in science and engineering, so that they can make a mark in this sector, and also crack the Joint Entrance Examination (JEE) – arguably the toughest undergraduate level entrance examination.

**Course-correction has just begun**

Women make up just about 8 per cent of the student population across the 23 IITs, and the writing is on the wall – even as more women are taking up higher education, the IITs and engineering institutes in general are largely out of bounds for them, for a variety of reasons.

Course-correction moves have only just begun, with the IIT Joint Admission Board recently announcing that the premier engineering institutes will admit over 1,400 women next year onwards. The IITs typically offer about 10,000 engineering seats per year.

The DST will take this mission a step further. Since parents are usually averse to sending their daughters to distant coaching hubs, the DST has taken it upon itself to go to the girls instead – it will organise two-year-long science camps at the district level.

DST secretary Prof. Ashutosh Sharma confirmed to ThePrint that a plan to bring in more women to the IITs is set to unroll, starting with a pilot project in 12 districts this year.

“There are less than 10 per cent women in IITs and we are determined to change that. We want to ensure that four years from now, one-third of the IITs’ student population comprises of women. We are starting our pilot project in 12 districts this year, and we will scale it across the country next year to achieve this. The idea is to select 50,000 Class 10 pass-outs from across school boards, based on a
certain percentile. Then we will provide them the best academic environment and facilitatory set-up for the next two years to train them,” Sharma told ThePrint.

He said the camps would be held at existing IITs, Indian Institutes of Science Education and Research, university campuses, or wherever good research and development facilities were available, complete with motivated faculty, volunteers and scientists, and a safe environment for girl students.

“The classes will be held every evening, through Class 11 and 12. We will also offer a modest scholarship of Rs 5,000 or so to cover commuting expenses for selected candidates. The science camp will not just be about teaching science to the girls, but also to bring them face to face with women scientists, to inspire, motivate and familiarise them with the lives of scientists and working women. We will also hold interactive sessions with the students’ parents, as they are key to this whole mission,” Sharma added.

Cognisant of the reservations several parents have about sending their daughters to distant institutes even after they qualify in exams like the JEE, the DST is also working on a plan with the IITs to allow locational advantage to girl students, and give them the choice to seek admission in an institute that may be nearer home.

लिगम के साथ मिल करे से बायोगैस बनाएगे आईआईटी छात्र


शहर में कचरा डंपिंग की समस्या से परेशान नगर लिगम को आईआईटी (आईएसएम) धनबाद के छात्र राहत देने की तैयारी कर रहे हैं। आईआईटी छात्रों की संस्था टोवेशो के साथ नगर लिगम ने एग्रीमेंट किया है। इसके तहत वार्ड नंबर 20 में निकलने वाले पूड वेस्ट या किचन वेस्ट बायोगैस तैयार किया जाएगा। सिंफोन के बाद धनबाद नगर लिगम यह अनोखा प्रयोग कर रहा है। नगर लिगम ने वार्ड नंबर-20 में दोर दोर सफाई का काम आईआईटी छात्रों की संस्था टोवेशो को सौंपा है। लेकिन वार्ड में निकलने वाले कचरे की डंपिंग की समस्या आ रही थी। इसे देखते हुए छात्रों ने बायोगैस प्लांट की योजना बनाई। लिगम को भी योजना पसंद आ गई तो उसने एग्रीमेंट भी कर लिया। टोवेशो के सारव कुमार ने बताया कि पायलट प्रोजेक्ट के तहत वार्ड नंबर 20 से इसकी शुरुआत की जा रही है। जिला स्कूल परिसर में इसके लिए जमीन चिह्नित की गई है। एनओसी के लिए आवेदन दिया गया है। 15 लाख में आएगा बायोगैस प्लांट मिनी बायोगैस प्लांट लगाने में लगभग 15 लाख रुपए का खर्च आएगा। इस मिनी प्लांट में एक बार में 1500 किलो कचरा कंपोस्ट कर उससे बायोगैस बनाया जा सकता है। सौरव ने बताया कि वार्ड नंबर 20 में लगभग इतना ही कचरा निकलता है। लोगों से अपील करते हुए कहा कि गीला कचरे को अलग डंस्टबीन में रखें।
Bihar students write to PM Modi against decision to make IIT-JEE Advanced test online


The students have already written to the Union HRD minister and to Bihar chief minister Nitish Kumar on September 8 urging the later to take up the issue with the Centre.

Students from Bihar have sought the intervention of the Prime Minister Narendra Modi to rescind the decision to conduct the Joint Entrance Examination (JEE)-Advanced for admission to prestigious Indian Institutes of Technology (IITs) online from next year.

The Joint Admission Board (JAB), responsible for laying down the policy for the examination, took the decision in August to conduct the exam online in order to make logistics and evaluations easier.

Pankaj Kumar Kapadia, an alumnus of IIT-Delhi, who is leading the protest, sent an email to the Prime Minister’s Office on Tuesday. He also tweeted their concern by tagging the Prime Minister and Union human resource development minister Prakash Javadekar on August 23.

The students feel that many meritorious students from rural India, especially Bihar and other less developed states, would be at a grossly disadvantageous position if the exam is conducted online because they are not computer savvy.

Demanding a level playing field for all students, they argued the government should first make computers available in rural schools before making the test online.

The students have already written to the Union HRD minister and to Bihar chief minister Nitish Kumar on September 8 urging the later to take up the issue with the Centre.

“Already grappling to overcome the English language barrier, many of us who had earlier not even touched the mouse of a computer will now have to write the exam on a computer. It is like eliminating them in the very beginning. They deserve the right to equality,” Kapadia, the son of a cloth merchant from Nasriganj block in Rohtas district, said.

Kapadia, a student of Super-30, took admission at IIT Delhi in 2006 to study chemical engineering.

He cited another example of the son of a Muzaffarpur-based marginalised farmer and rickshaw puller, Rahul Kumar, who knew neither English nor computers but made it to IIT Bombay in his first attempt last year.

The government earlier made it optional to take the JEE-Mains test online. Of the 118,600 lakh candidates who registered for JEE Mains 2017, only 165,000 took the exam online and 956,000 opted for the conventional pen and paper based exam.
Students vying for admission to National Institutes of Technology (NITs) and other centrally-funded technical institutions need to clear the JEE-Mains. Only the top few who clear the JEE-Mains qualify for the next level of JEE-Advanced.

More than 150,000 students took the JEE Advanced in 2017.

**HRD ministry to bring back retired profs to fill vacancies in varsities**


Agra: Union HRD minister Prakash Javadekar in a meeting via video conference with authorities of 42 universities across India said on Wednesday that the central government is considering bringing back retired teachers not more than 75 years old and with "good teaching track record" to fill in the enormous number of vacancies in centrally funded institutions and universities.

The minister, who confirmed to TOI the development, announced this while addressing officials of various universities and institutions. He said these retired teachers could be hired provided their teaching record is good and they are medically fit and that "they stick to academics, not getting into administration".

Javadekar said the government was considering this in order to bring back good faculties, needed to streamline the process of education, and to tackle the backlog. During the video conference, he also suggested that good research scholars from reputed foreign universities, too, could be given teaching assignments in India. He directed all vice-chancellors to bring down vacancies to 10%.

The minister assured all help from the government for this initiative and said it should be the quality of teaching that attracts more attendance in classrooms rather than just physical facilities.

Aligarh Muslim University registrar Javed Akhtar, who was one of the participants in the discussion, told TOI that apart from representatives of 42 universities, MHRD secretary Kewal Kumar Sharma and additional secretary (central universities) SS Sandhu were also there for the discussions. Sandhu has asked the VCs to appraise him of issues that concern the UGC every first week of the month.

Javadekar, incidentally, had recently announced a major recruitment drive across campuses as new central universities have 53.28% vacancies, followed by NITs with 47%.

According to Akhtar, AMU alone has 20% vacancies, with 55 of the 195 sanctioned posts for professors lying vacant. Besides, posts for 110 associate professors and 160 assistant professors are vacant against the sanctioned strength of 390 and 1,040 respectively.

Among central universities, the central university of Haryana, according to HRD records, is reeling under 75.11% vacancies as on April 1, 2017, while in the same period Delhi University recorded a
total of 54.75% vacancies against permanent positions. University of Allahabad, too, has over 64% vacancies to be filled.