

Newspaper Clips

April 29-30, 2017

April 29

HRD ministry softens stand on raising student intake at IITs

<http://www.livemint.com/Education/tLtf3lQvQ7CY0J9pnnawdK/HRD-ministry-softens-stand-on-raising-student-intake-at-IITs.html>

HRD ministry indicates it wouldn't push IITs to increase student intake to reach the one-lakh mark by 2019 as it believes quality is key at the premier engineering institute.



Apart from deciding on student intake, IIT council—headed by HRD minister Prakash Javadekar— is also seeking a six-fold fee hike for the PG courses offered at the premier engineering institutes.

The Union government has softened its stand and indicated it would not push the Indian Institutes of Technology (IITs) to increase their overall student capacity to 100,000 over the next two years.

Last year, the IIT council headed by the human resource development (HRD) minister had decided to increase the overall capacity of IITs from around 72,000 to 100,000 by 2019.

“The ministry told us it does not want to force us to reach the 1 lakh number in next two years. The ministry believes quality is key in IITs, and IITs should take their own pace to reach any number,” said an IIT council member over phone after a meeting at IIT-Bombay on Friday.

The person declined to be named, saying a formal announcement will soon be made by the HRD ministry.

Meanwhile, the IITs have agreed to increase the number of seats for women candidates by 20% at the B.Tech level over a period of five years. They will add 4% seats per year for women at the undergraduate level, the IIT council decided on Friday. Some of the IITs are expected to adopt the formula from this year.

The IIT council, headed by the HRD minister, comprises directors and chairmen of the 23 IITs and senior officials of the higher education department.

The person mentioned above said the clarification gives IITs the confidence that the government will not push them to enhance capacity when infrastructure—both physical and intellectual—is inadequate.

All IITs have agreed to increase their intake of female students, IIT-Bombay said separately.

The low female students ratio at IITs has been discussed for years. Currently, all IITs together have a little less than 9% female students at the undergraduate level.

IITs admit around 10,000 students each year at the B. Tech level through a two-tier joint entrance examination system.

Though the plan to reach 100,000 student strength including undergraduate, post graduate and research by 2019 and the increase in female student intake are mutually exclusive, the IIT authorities said they are “complimentary to each other”.

Meanwhile, the IIT council has deferred a proposal for a sixfold hike in course fee for post-graduate students. In their proposal, the IITs said though they spend about Rs10, 400 per student per month or over Rs1.24 lakh per annum, they charge only Rs20,000 per annum from each student, as per the agenda document of the IIT council meeting.

IITs want student fee to be raised to reduce their financial burden at a time when the government is pushing for more revenue generation at the elite institutions.

With the number of post-graduate students increasing, the engineering schools feel it’s time to increase the fees to maintain quality and provide good facilities.

The HRD ministry has deferred another proposal from the IITs wherein they were demanding that the government should compensate them for the free or discounted education they provide to students from the socially and economically backward sections of society.

In April 2016, while allowing IITs to increase undergraduate fee to Rs2 lakh per annum, the government had convinced them to waive, in full, the annual fees for students from the scheduled castes, scheduled tribes and differently-abled categories.

Besides, students from families with an annual income of less than Rs1 lakh are getting free under-graduate education and those belonging to families with annual income of less than Rs5 lakh are getting a waiver of 66% of the total fee.

“We will review the demands of IITs,” HRD minister Prakash Javadekar said. For this year, though, there will be no change in the fee structure.

Javadekar, however, asked IITs to come up with a three-year action plan, seven-year strategic plan and a 15-year vision plan of their growth.

IITs seek six-fold fee hike for PG courses

<http://www.livemint.com/Education/W2YPHH9B97Izi9J9oYxgyH/IITs-seek-sixfold-increase-in-PG-course-fee.html>

IITs want a six-fold fee hike for PG courses to reduce their financial burden at a time when the government is pushing for more revenue generation

After hiking the course fee for their undergraduate courses, the Indian Institutes of Technology (IITs) are seeking to hike their postgraduate course fee by six times.

In a proposal, the IITs have underlined that though they spend some Rs10,400 per student per month or over Rs1.24 lakh per annum, they only “charge Rs20,000 per annum” from each student, as per the agenda document of the IIT council meeting.

IITs want student fee to be hiked to reduce their financial burden at a time when the government is pushing for more revenue generation at these elite institutions.

All the 23 IITs, their board chairmen who are largely industry leaders and top officials from the human resource development (HRD) ministry will take up the matter and try to take a call on this by this evening in Mumbai.

With the number of post-graduate students increasing in the IITs, these engineering schools feel that it’s time to hike the fee for post-graduate students to maintain quality and provide good facilities.

The move comes a year after the IIT council headed by human resource development minister last year increased the course fee from Rs90, 000 to Rs2 lakh per annum for undergraduate IIT students.

While allowing the fee hike, the government then (April 2016) had convinced the IITs to waive, in full, the annual fees for students from scheduled caste and scheduled tribe and differently-abled categories. Besides, students from families with an annual income of less than Rs1 lakh are getting free IIT under-graduate education and those belonging to families with annual income of less than Rs5 lakh are getting a waiver of 66% of the total fee.

IITs also want this to be reviewed as free and discounted education is impacting their financials adversely and giving the false impression that the fee hike at the under-graduate level has improved their financial condition. The IITs are set to demand that the HRD ministry should compensate the fee waiver component or do away with it by making loan facility smoother for every category of students.

IIT Council chaired by Prakash Javadekar discusses fee waiver, student suicides

<http://www.financialexpress.com/education-2/iit-council-chaired-by-prakash-javadekar-discusses-fee-waiver-student-suicides/646882/>

While talking about the fee waiver issue on Friday, the IIT council in Mumbai chaired by Union HRD Minister Prakash Javadekar directed the institutes to continue with their existing fee structure for a year

While talking about the fee waiver issue on Friday, the Indian Institutes of Technology (IIT) council in Mumbai chaired by Union Human Resource Development Minister Prakash Javadekar directed the institutes to continue with their existing fee structure for a year. Other issues that were raised included the number of student suicides that took place in the IITs in the recent past. In the meeting, Javadekar expressed concern over the suicides committed by three IIT Kharagpur students earlier this year – despite dedicated systems in place, according to an Indian express report.

The report also stated that in reference to student suicides, he instructed the institutes to stretch orientation programmes for the first-year students to a long-duration from the current two-day orientation programme. The aim is to help the new students adjust to the pressure and adapt to cultural diversity. The council has also decided to transform counselling centres on the campus into wellness centres to focus on the well-being of the students in IITs. Other points that were discussed included ways to increase the number of women students in these institutes. From currently limited to eight percent, the focus is to reach to more than 20 percent. For this, “supernumerary seats will be added to institutes,” said Javadekar as quoted by The Indian Express.

The council further proposed incentives for PhD scholars to curb the outflow of research scholars from the country. The proposal mentioned that all fourth-year engineering students with the excellent academic record will be granted a scholarship amount Rs 75,000 per month under the Prime Minister Scholarship Scheme for pursuing PhDs in IITs, said Javadekar adding that it will now be tabled in the Union cabinet. The union minister also announced the Centre plan to raise Rs 20,000 crore in three years to fund research in premier educational institutes including IITs.

IIT Council proposes Rs 75,000 scholarship for ‘innovative’ researchers

<http://www.hindustantimes.com/education/iit-council-proposes-rs-75-000-scholarship-for-innovative-researchers/story-VZSVWIKJqLlIxH1kwal69N.html>

Education minister Prakash Javadekar, who heads the IIT Council, has also announced that the Centre will raise Rs 20,000 crore for the Higher Education Finance Agency (HEFA)

To give impetus to research and motivate students to pursue higher studies, the Indian Institute of Technology (IIT) Council has proposed a monthly Rs 75,000 scholarship for select students who are innovative researchers.

The IITs will also make short and long-term plans to raise the standards of premier institutes within the next three to four months. Education minister Prakash Javadekar, who heads the council, also announced that the Centre will raise Rs 20,000 crore for the Higher Education Finance Agency (HEFA) in three years through debt instruments. The money will be used to fund research infrastructure in premier institutes.

The government, had said in September last year that HEFA would finance the civil and lab infrastructure projects through a 10-year loan.

Javadekar said that these measures will help IITs improve their international rankings and will make them more beneficial to students.

In Pollution-Choked Delhi, a Team of Engineers Is Turning Diesel Soot into Ink and Paints

<http://timesofindia.indiatimes.com/home/education/iit-bombay-joins-china-sponsored-universities-alliance/articleshow/58447572.cms>

Using an award-winning, patented technology, Chakr Innovations is on a mission to bring about sustainable reduction in air pollution levels

It all started one day when Arpit Dhupar, an IIT Delhi alumnus, and his friends were at a roadside stall, getting their fill of sugarcane juice. The cane crusher was running on a diesel generator but its emission was not visible because the vendor had attached an exhaust pipe to divert the carbon emissions to a wall.

For Arpit, it was a moment of epiphany. He noticed that the emitted soot had painted the wall black and wondered if it could be something bigger. “If it can colour the wall black, it can surely be utilised as paint,” he thought.

Taking the gauntlet, Arpit and his friends worked for a year to develop Chakr Shield, a device that transforms soot into ink and paint.



A Chakr Shield attached to a diesel generator

The device led to the founding of Chakr Innovations, founded by Arpit along with Kushagra Srivastava and Prateek Sachan, also engineers from IIT Delhi. Kushagra, CEO of the enterprise, says, “We are a team of 15 engineers from mechanical, chemical and textile backgrounds who have decided to follow our love for the environment and work hard to solve problems related to sustainable development.”

The word Chakr (or chakra) might remind many readers of the mythological Sudarshan Chakra, the deity Krishna’s weapon. It also means circle or cycle, which represents the philosophy and ethos for of their enterprise for the Chakr Innovation team. Kushagra says, “The pollution captured by our device is used for manufacturing of ink. In this way we convert discarded pollutants into a value-added product, thus completing a cycle.”

He adds, “Air pollution is one of the leading causes of death in India. According to reports by Greenpeace India, every year nearly 1.2 million people lose their life due to air pollution in the country. It also causes the loss of 3% of GDP. One of the main sources of this pollution is diesel generators. This motivated our team to work on the technology that not only reduces the pollution from DG sets but also in turn reduces the pollution caused in manufacturing regular ink.”

Despite the lack of stable capital for production and R&D, the team worked to launch their pilot project in 2016. Their early projects gained attention, and the team was chosen as the winners of the University of Chicago Urban Labs India Challenge, 2016, among a number of awards and grants.

To put it simply, the Chakr Shield converts soot into ink, which in turn is used for products like printer cartridges, paint and printed T-shirts.



Left: Chakr Innovation’s products; Right: A POINT demonstration in progress

Using the device, the diesel generator's exhaust is first cooled down and then passed through special contours which capture soot particles in the air. For the Chakr team, this capturing mechanism posed one of their challenges. "The main constraint was to develop a capturing mechanism that has no negative effect on the working of engine," Kushagra says. "It took months of trying and testing different mechanism to develop a new technology and fill."

Once the particulate matter is captured, it is stored and processed into ink. Christened POINK, the ink can be mixed with the right medium to be used in textile printing, paper printing, paints, etc. Being made from waste, it naturally reduces the carbon footprint of ink pigment formation.

At its pilot stage, there are over 30 Chakr Shields in operation. Spread across across NCR, they have been installed in telecom industry towers, FMCG industry plants and real estate companies. "The devices have captured over 180 kg of particulate matter, which would have otherwise entered the atmosphere, polluting 900 billion litres of air," Kushagra reports, adding the device can be used by anyone who uses diesel generators, including residential spaces.

The team estimates that their patented technology can reduce particulate matter emission from diesel generators by a whopping 90%.



Chakr Innovation's business development team with samples of POINK

In their next stage of operations, the Chakr team hopes to transition towards building clientele and optimising production. "We have received interest from most industries on willingness to use the technology to meet regulatory requirement as well as for sustainability efforts," says Kushagra. Another focus for the team is to introduce further improvements in their signature product.

Kushagra says, "The current technology can only capture particulate matter. We are working on the technology so that it can also capture pollutants like SO_x, NO_x etc. Also, we want to implement our device to other sources of pollution too, like chimneys, boilers and commercial vehicles."

The startup has also partnered with BOSCH to aid them in product commercialization and further development. They are also working on applying the device for small scale industries which use furnace, with the plan to commercialize it over the next 3-4 months.

The team's work is not always easy, but as Kushagra says. "No impact comes without facing and overcoming challenges," he says. While increasing pollution levels leave many in despair, the Chakr believes that clean-tech ventures can make substantial difference. Using technology can aid the implementation of carbon emission norm, especially for widely used machines like diesel generators, and keep pollution levels in control.

Chemplast Sanmar to set up research lab at IIT-M

<http://www.thehindubusinessline.com/companies/chemplast-sanmar-to-set-up-research-lab-at-iitm/article9672347.ece>

Chemplast Sanmar, a leading manufacturer of chemicals and part of Chennai-headquartered Sanmar Group, plans to set up a research laboratory at IIT-Madras on Zero Liquid Discharge (ZLD).

The lab, coming up at the Department of Environmental Engineering, will carry out research on ZLD and will have test bed facilities for user industries. The company will spend ₹1 crore on the laboratory that is being set up to commemorate its golden jubilee.

Chemplast Sanmar has adopted ZLD at its plants in Cuddalore and Mettur in Tamil Nadu and Karaikal in Puducherry. What this means is that no treated effluent from the plant operations will be discharged on to the land or sea. These plants completely recycle and reuse liquid effluents. "We were pioneers in adopting ZLD and it has since been adopted as the industry standard," N Sankar, Chairman, Sanmar Group, told *BusinessLine*, on Friday.

Also, as part of Chemplast Sanmar's golden jubilee celebrations, the company will improve the facilities at the IIT-Madras-Chemplast cricket ground inside the IIT campus. The pavilion at the ground was declared open in 1998 by legendary Australian cricket Neil Harvey. Chemplast, a patron of sports, particularly cricket, will now improve the facilities at the ground and establish the KS Narayanan Centre for Cricketing Excellence, named after late KS Narayanan, former Chairman of the group.

April 30

IIT, Bombay joins China-sponsored universities alliance

<http://timesofindia.indiatimes.com/home/education/iit-bombay-joins-china-sponsored-universities-alliance/articleshow/58447572.cms>

Continuing with its drive to take a leadership position in different aspects of Asian life, China on Saturday launched an Asian Universities Alliance with participation by universities from 15 countries. From India, the Indian Institute of Technology, Bombay, has become a member.

The alliance, which has been put together by the elite Tsinghua University in Beijing, aims to promote exchanges of students and teaching faculties across different universities in Asia. They will also come together to promote joint research in a range of areas.

"We are already doing a lot of international collaborations. But this alliance will help us refocus on Asian universities in a lot of areas like student mobility, faculty exchange, and joint research," Prasanna M. Mujumdar, deputy director of IIT, Bombay told TOI while explaining his institution's purpose in joining the alliance.

IIT, Bombay has a collaboration with Monash University in Australia making it possible for students to access wider education opportunities and receive degrees signed by presidents of two universities, Majumdar said. Similar collaboration may be possible with other member universities in this Asian alliance, he said.

"What we would like to do is built up very strong research groups with other universities," Majumdar said adding, "If we have strength in two universities, the best of minds from two sides, each have their own niche expertise to contribute, then we can jointly bid for research proposals".

Alliance partners include the Peking University in Beijing, University of Tokyo, Hong Kong University of Science and Technology, Singapore National University, Seoul National University and the University of Colombo, Tsinghua University, Peking University, the Hong Kong University of Science and Technology, South Korea Seoul National University, the University of Tokyo in Japan, Chulalongkorn University of Thailand, the University of Yangon, Myanmar, University of Malaya of Malaysia, Singapore National University, University of Indonesia, the University of Colombo, Sri Lanka, the Indian Institute of Technology Bombay, Tsinghua University, Peking University, the Hong Kong University of Science and Technology, South Korea Seoul National University, the University of Tokyo in Japan, Chulalongkorn University of Thailand, the University of Yangon, Myanmar, University of Malaya of Malaysia, Singapore National University, University of Indonesia, the University of Colombo, Sri Lanka, the Indian Institute of Technology Bombay, Tsinghua University, Peking University, the Hong Kong University of Science and Technology, South Korea Seoul National University, the University of Tokyo in Japan, Chulalongkorn University of Thailand, the University of Yangon, Myanmar, University of Malaya of Malaysia, Singapore National University, University of Indonesia, the University of Colombo, Sri Lanka, the Indian Institute of Technology Bombay.

The alliance will become "a platform for gathering educational ideas and resources to train".

The alliance will contribute "Asian wisdom to resolve regional and global problems," Chinese vice premier Liu Yandong said while inaugurating the launch program on Saturday. It will bring together "outstanding talents with an international perspective and to serve regional development," she said.

At its first meeting, the alliance partners decided to focus research on information technology, resources and environment and public health.

"We have strength in all of these areas. We would like to build strong research groups in these areas across these Asian universities," Majumdar said. It is possible to attract funding when there are strong research groups, he pointed out.