Govt may offer OBC quota in varsities, IITs: Kushwaha

PRESS TRUST OF INDIA
NEW DELHI

The government is in the middle of a process to offer quota to OBCs in recruitment of faculties in central universities and IITs as per ‘already existing’ policies and will ‘soon’ arrive at a decision in this regard. Union minister Uma Bharti said on Monday.

Speaking to reporters here, the minister of state for HRD also said the NDA government will ‘soon’ reach a decision to give OBCs reservation in list of students nominated to Jawahar Navodaya Vidyalayas every year.

The comments from Kushwaha, an OBC leader, assume significance as they come ahead of assembly election in Uttar Pradesh — home to sizeable OBC population — as constituents of NDA are pulling out all stops to woo voters there.

There is no provision for reservation for OBCs in recruitment of faculties, associate professors and professors in central universities, IITs. This is when the government of India has a policy of following reservation in these places. In other words, this (not giving quota) is violation of the policy.

We are now paying attention to this. We are in the middle of the process and soon we will arrive at a decision in this case too,” Kushwaha said.

The minister said further said students from SC and ST communities have been offered reservation in list of between 80 and 100 students nominated to each of country’s Jawahar Navodaya Vidyalayas from rural parts every year, but there is no such provision for OBCs.

“I was surprised to know this. Our ministry is now paying attention to this and we will soon arrive at a decision,” he said. An arrangement will be made for providing reservation in nomination for OBC students in these Vidyalayas,” he added.

Kushwaha rued that strength of OBCs among Supreme Court and high court judges was “negligible”. “OBC people will not get justice until they make it to the judiciary. The Constitution provides for Indian Administrative Service. There is also a provision for Indian Judicial Services. But it is not being followed up,” he said.

He also pitched for giving quota to OBCs in private sectors and the sector of media too as the number of government jobs is shrinking.

“Our party has taken up these programmes. We will take up the issue at the level of government and our workers will also hit streets if need be,” the minister added.
IIT Delhi’s Rendezvous: Euphoria dedicates performance to Indian soldiers

Palash Sen and DJ Bhaduri perform along with their band Euphoria, on day two of IIT Delhi’s annual fest Rendezvous (2016).

The dhoom pichak at Indian Institute of Technology (IIT) Delhi’s fest, Rendezvous 2016 was one helluva experience for youngsters attending the annual fest. Coming to stage after much-wait, the band Euphoria’s lead singer Palash Sen soon made the crowd shout ‘Bharat Mata ki Jai’ and in quick succession announced, “We dedicate this show tonight to soldiers who are standing on the border. And for Pakistan we would like to say this (shows a fist).”

The band was performing for the fourth time at IIT, and Sen didn’t mind flattering the IITians apart from making them groove to his music. He said during the performance, “After DU’s Lady Shri Ram College for Women, IIT Delhi was the second college to invite us to perform and since then this is our fourth and the maximum number of times we have performed at any college.”

Lead singer of the band Euphoria, Palash Sen, during the performance.

He added, “I went to a medical college, and can say that jo ladka-ladki IIT-JEE clear kar sakta hai, use achcha koi bhi nahi (that boy-girl who can clear IIT-JEE, there’s no one better than them)!”

The act of Euphoria was the highlight of day two and drew massive young crowd from colleges across the city, including Delhi University. The stage was set by the four bands who competed in the Hindi rock band competition Spectrum. Post
this, the wait for the final showdown by Euphoria was made worth by the vocalists of the band TMKC (Teri Music Ki Chahat). With their versions of popular numbers such as Muqabala Muqabala, they kept the crowd entertained.

Enthusiastic crowd at IIT Delhi switched on mobile flashlights to ring in the countdown for Euphoria’s performance.

Even on day one, street plays by various colleges and beat boxing competition kept the audiences’ adrenaline rush high. The fun factor continued by Blitzkrieg – English rock band competition, which had the crowd head-banging. The love for Blitzkrieg was visible in its audience which comprised not just college but even school students. Kavya Vignesh, a class seven student and Urvi Butola, a class eight student were among these. Vignesh says, “This was our first metal performance. We have specially come with our families for this event. And it’s so cool! We can’t wait for Drowning Pool. They’re my favourite band!”

One of the performing bands The Forbidden Ritual, had an embarrassing moment during Blitzkrieg, when its vocalist Shourya Mehta addressed the IIT Delhi crowd as “IIT Guwahati”. The error elicited some boos and jests from the crowd.

**FIRST TWO DAYS OF RENDEZVOUS, IIT DELHI, FULL OF ACTION**


IIT Delhi’s Cultural Fest, Rendezvous 2016, took off on 21st October, 2016. The day opened with the immensely energetic street play acts by the dramatics societies of various college like IIT-Delhi, Hansraj College and Kirori Mal College. The fest also hosted one its most awaited events on Day 1 which was the Campus Princess. Another much anticipated event of the fest, Mr. & Ms. Rendezvous 2016, saw huge participation from across Delhi. The finale round of the event consisted of two stage rounds. The judges then presented the prestigious title of Mr. Rendezvous to Monis Ahmad Khan of Jamia Milia Islamia University, and Ms. Rendezvous to Sanya Devgon.
Blitzkreig—the battle of bands, added to the energy of the day. Bands like High Frequency, Knight Shades, The Forbidden Ritual and many more gave power-packed performances. The first prize was bagged by Knight Shades and the second by the band High Time.

The first pro night of IIT Delhi featured Drowning Pool, an international rock band, that gave their first performance in India, and brought the first day to a close.

The second day kicked off with Tatva, the fusion band competition. The event witnessed participation from various colleges across the country. Infusion band of IIT Delhi stood first, while Chaos Theory of Shiv Nadar University came second. Twelve Strings of Vivekananda Institute of Professional Studies (VIPS) bagged the third position.

Mimansa, the street play competition was held simultaneously, where teams depicted various issues like the caste system and religion wars. The first prize was won by Ankahi—the dramatics society of IIT Delhi, while Anubhuti—the dramatics society of Janki Devi Memorial College (JDMC), and Ijaad—the dramatics society of PGDAV College (Evening) came second and third, respectively.

The day continued with several informal and competitive events like Voice of Rendezvous, Story Teller, Paintara, Scooter Stunts and Chakravyuh among others. It was followed by the event YouTubers United, where series of events celebrating the rise of these new celebrities took place. Its second series witnessed various pranksters like Rishabh Rai, The Teen Trolls, Love Rudrakash, The Trouble Seeking Team and The AVRprankTV.

The day concluded with Euphoria Band, energetically performing its various popular numbers.

October 24

Times Nation ND 24.10.2016 P-1

From 2017, IITs to have 528 seats more

Somdatta Basu
@timesgroup.com

Kolkata: The Indian Institutes of Technology (IITs) will implement a 5% increase in their total student intake from the next academic session.

The decision to increase the number of students—from 10,572 in the current academic session to 11,100 the next year—was taken at a recent meeting of the Joint Admission Board (JAB), which is the highest decision-making body of IIT-JEE (advanced). The meeting was attended by the chairpersons of all IITs.

While this increased number was to be absorbed by all 23 IITs, several of the older institutes said they wouldn’t be able to immediately increase their intake with their current infrastructure. The country’s premier engineering and tech scho-
Centre plans to link varsity autonomy to performance

Vikas Pathak

NEW DELHI: The Human Resource Development (HRD) Ministry is considering linking the autonomy of higher education institutions to their performance as measured by the National Institutional Ranking Framework (NIRF).

The NIRF is a comprehensive ranking system for universities developed by the Ministry. The first NIRF rankings were released earlier this year.

Three categories

“We are thinking of dividing universities into three categories — A, B and C — on the basis of their NIRF rankings,” HRD Minister Prakash Javadekar said. “The first will be most autonomous while the last will require more regulation.”

The A category will comprise institutions with high NIRF rank and these will be highest on the autonomy scale, the B category will comprise middle-ranking institutions with part autonomy but also government regulation, and category C will mean institutions with low ranking that will require greater regulation and hand-holding for improvement.

Mr. Javadekar said greater autonomy could imply a number of things, including the complete freedom to have their own syllabi and curricula.

Next round in April

The next round of NIRF rankings will be published on the first Monday of April 2017. As per the 2016 rankings, IIT Madras topped among engineering colleges, followed by IITs at Mumbai, Kharagpur, Delhi, Kanpur and Roorkee. IIT Madras had a score of 89.41.

Among universities, the Indian Institute of Science, Bengaluru, topped, followed by the Institute of Chemical Technology in Mumbai, Jawaharlal Nehru University in Delhi, Hyderabad University and Tezpur University. Among management schools, IIM Bengaluru was ranked first with a score of 93.04, followed by the IIMs at Ahmedabad, Kolkata, Lucknow, Udaipur and Kozhikode.

Dainik Bhaskar ND 24.10.2016 P-3

आईआईटी दिल्ली में होगी स्कूलों की टेक्नोलॉजी विवाद

इस दिनसे | आईआईटी दिल्ली में देश प्रांत के स्कूलों की टेक्नोलॉजी विवाद का आयोजन 12 नवम्बर को होने जा रहा है। इसमें पंडीतों को कहा, कक्षा 8 से 12वीं तक के छात्र इस किविज को हिस्सा ले सकते हैं। हर स्कूल से दो सदस्यों की टीमें इसमें भाग ले सकते हैं। प्रतियोगिता का प्रारूप प्रतिस्पर्धित प्राइमरी राउड की सर्वश्रेष्ठ छह टीमें रोजनल फाइनल्स के लिए क्वालिफाई करेंगी। फाइनल्स के लिए क्वालिफाई करने वाली एक ही स्कूल की कई टीमों में सबसे अधिक स्थान करने वाली टीम को ही मंच पर खुलाया जाएगा। रोजनल फाइनल्स की विजेता टीमें दिसंबर में मुंबई में आयोजित होने वाले मेना फाइनल्स में आपस में मुकाबला करेंगी। विजेता टीम एक एस्कॉट के साथ मुंबई भेजा जाएगा।
Car dealers told not to stock cars with old emission norms

ENVIRONMENTAL CONCERNS Supreme Court-appointed green body tells states not to register vehicles with standards lower than Bharat Stage-IV after March 31, 2017

Soumya Pillai

NEW DELHI: The Supreme Court-appointed Environment Pollution (Prevention and Control) Authority (EPCA) of Delhi and NCR has asked motor dealers not to stock Bharat Stage-III vehicles.

Sunita Narain, member EPCA and director general of Centre for Science and Environment (CSE), told HT that in a series of meetings conducted on Wednesday with vehicle dealers in Delhi and the NCR region, the deadline to phase out vehicles with BS-III and below emission standards, was reiterated.

"After April 2017, the sale and registration of vehicles not complying with BS-IV emission norms will not be allowed. There was a lot of hue and cry around the phase out but there has been enough time given to the dealers to phase out their stock," Narain said.

It has been six years since BS-IV was introduced in India in 2010. Last year, the Ministry of Road Transport and Highways also issued a draft notification making BS-IV norms mandatory across the country in a phased manner. The process started in October 2015.

At present, though comprehensive data is unavailable, experts estimate that out of the total vehicles registered in Delhi every day, half are still only BS-III compliant and below. About 1,500 vehicles are registered in the Capital every day.

Narain said that EPCA has written letters to all the state governments asking them not to register any vehicle with emission standards lower than BS-IV beyond March 31 next year.

Studies have found that the compliance of BS-IV standards will reduce particulate emissions by 80% and nitrogen dioxide (NO2) levels by at least 31%.

"The world has already moved towards BS-VI norms and we are still reluctant in moving to BS-IV. We have been in constant touch with the manufacturers and all the companies have the type approval of BS-IV in place, then why delay," she said.

The government has set the deadline for introducing BS-VI norms in 2020.

Automobile experts, however, say that the transition from BS-III to BS-IV is a difficult one mainly because it will call for major technology changes from the automakers' end.

"A genuine problem which most automakers have sighted is that they have not got enough time to upgradation their technology considering the two main elements — diesel particulate filter and selective catalytic reduction module — would have to be adapted to India's peculiar conditions, where running speeds are much lower than in Europe or the US," Dr Prashant Srivastava, mechanical engineering department, IIT Delhi.

He said that a government report of 2014 said that four years after the introduction of BS-IV petrol penetration in the domestic markets of metro cities was 24% and that of high-speed diesel was only 16%.

Tribune ND 24.10.2016 P-6

₹6.25 lakh to be recovered from ex-VC's pension

SONEPUR, OCTOBER 23

The authorities at DCR University of Science and Technology, Murthal, have written a letter to Indian Institute of Technology (IIT), Delhi, to deduct Rs 6.25 lakh from the pension of retired IIT Prof Raj Pal Dahiya. He relinquished the charge of VC in August this year. Prof Dahiya allegedly withdrew salary more than what is entitled to a VC besides circumventing deduction of pension equivalent to gratuity.

According to the university rules, the monthly basic pay of a VC is fixed at Rs 75,000. If the VC is a retired person, the pension's basic pay amount is to be deducted from the salary.

Sources said, Prof Dahiya got his basic pay fixed at Rs 39,500 instead of the entitled pay of Rs 35,500. He also did not allow monthly deduction of Rs 10,400 as pension equivalent to gratuity. KP Singh, registrar, said the authorities at IIT had been urged to deduct Rs 6.25 lakh from his pension, which was withdrawn in excess as salary. — OC
River pollution: IIT-D prof calls for database of sewage inlets


CHENNAI: A database of inlets into rivers is what is needed to plug the illegal flow of sewage and effluents, said IIT-Delhi professor A K Gosain as he called for a scientific approach towards restoring polluted rivers. He was speaking at the...
Regional Conference on Environment at TN Dr Ambedkar Law University on Sunday.

On the adverse impact of climate change on water resources, Gosain said, "The hydrological aspects of a river must be the basis for planning for development along a river plain." For the Ganga Rejuvenation Project, the professor said extensive data of every inlet along the gangetic plain must be mapped.

Stating that climate change could threaten biodiversity and alter coastlines, principal secretary to the state, rural development and panchayati raj ministry, Hansraj Verma, said, "Community participation is the building block of adaptation strategies towards climate change."

United Nations Environment Programme (UNEP) director Robert Ondhowe stressed on the importance of the Kyoto Protocol, an international treaty to contain CO2 emissions, in combating climate change. Of the Paris Agreement, which India signed in April and ratified earlier this month, Ondhowe said, "The Paris agreement provides a template for international communities to mitigate emission. The role of cities, regional and local authorities is the unique feature of the agreement."

He called for a clean development mechanism and hailed India as a leader in such an approach. Echoing similar views, Justice of Kerala high court A K Jayasankaran Nambiar said rapid development has ignored the impact of industrial emissions on climate change.

Chairperson of National Green Tribunal which organised the event, Justice Swatanter Kumar presided over the conference and the Madras high court chief justice Sanjay Kishan Kaul delivered the valedictory address.
October 23

Deccan Hearld ND 23.10.2016 P-07

Kumar Mangalam Birla is IIM-A’s new chairman

AHMEDABAD, DHNS: Kumar Mangalam Birla, the 49-year-old chairman of $41 billion industrial conglomerate Aditya Birla Group, is all set to take over the reigns as chairman of the Indian Institute of Management Ahmedabad (IIM-A).

The premier B-school has been without a regular chairman since January, when the previous chairman A M Naik, CMD of L&T, resigned citing “paucity of time”.

Though the Union HRD ministry is yet to make an official announcement on Birla’s selection, his name was confirmed to DH by Pankaj Patel, CMD of the Zydus Cadila group and head of the three-member search panel set up to look for a new IIM-A chairman. Patel has also been holding charge as the interim chairman of the IIM-A board currently.

The selection of Birla as the new chairman of the IIM-A board was also confirmed by another person close to the business tycoon, on condition of anonymity.
Infosys extends helping hand to IIT-Kharagpur

KOLKATA: Infosys Foundation, the philanthropic arm of IT giant, has signed an MoU with IIT-Kharagpur to fund travel (preferably for women) to 'Top International Conferences' and the research on the antiquity of Indus Valley, which is being carried out by the premier institute in association with the Archaeological Survey of India.

The initiative has been jointly undertaken under the leadership of Infosys Foundation chairperson Sudha Murty and IIT-Kgp director Partha Pratim Chakrabarti. "While advanced education helps us leap forward, studying ancient civilizations enables us to reflect on the culture of bygone societies. Infosys Foundation recognizes the importance of both and is committed to supporting programmes in both these areas," Sudha Murthy said. Murthy , one of the members of the board of governors at IIT-Kharagpur, had earlier donated Rs 5 crore to Presidency University. "It will be a great initiative as the decision will inspire many more women research scholars and students to come up with some very innovative work, publish journals or papers and take part in internationally acclaimed global conferences," added Chakrabarti.

Every year, over 250 students participate in international conferences. Murthy has proposed to provide Rs 20 lakh from her own resources to support women students for such conferences. "Such conferences have been beneficial to students in netorking for their doctoral and postdoctoral programmes. With support from Infosys Foundation, eight to 10
meritorious girl students will be selected by a committee at IIT-Kgp to be sent to top conferences. These students will have Infosys Foundation mentioned in their presentation," added S K Ray, dean (postgraduate studies research).

Anindya Sarkar, lead investigator of the Indus Valley project, felt the funding had come at a right time when "we just unearthed some old Indus valley settlements in India. We are seeking permission from ASI for excavating a specific site and the grant will be used for studying the causes of climate change using latest techniques of isotope and faunal analysis."

**RESEARCH**

**Finding the right waves to cut breast cancer**

A team at IIT-Ropar is trying to use radio waves to treat this form of cancer, which is the most common cause of cancer deaths among women in India

Jacob Koshy

The International Agency for Research on Cancer, a World Health Organisation agency that decides on the carcinogenicity of a vast list of things, lists radio waves — those emitted by mobile phones, for example — in a "possible carcinogens". However a team of researchers at the Indian Institute of Technology, Ropar (IIT-Ropar), in Punjab, are trying to use radio waves to treat breast cancer, the most common cause of cancer deaths among women in India.

**Radio waves for treatment**

Radio waves are a big chunk of the electromagnetic spectrum and indispensable for the working of several of our communication devices from radios to satellites. However, the higher the frequency of electromagnetic waves, the more energetic they are and the greater their chances of being harmful to the body. To tune radio waves for therapy, scientists employ the low- and medium-frequency range. Over the years this insight has been used to alleviate minor ailments such as neck and back pain but with improvements in how these waves can be finely controlled, there's now increasing attention to using it to treat cancer.

In radiofrequency ablation treatment or RFA, cancerous tissue is burned off by poiting a needle electrode through the skin into the tumor. Determining the right place to insert the needle needs high-resolution images of the infected region that are taken through a range of instrument such as ultrasound, computed tomography (CT) or magnetic resonance imaging (MRI). The high-frequency electrical currents are passed through the electrode, creating heat that destroys the cancer cells.

According to the American Radiology Association, RFA is an effective treatment option for patients who might have difficulty with surgery or others whose tumours are less than one and a half inches in diameter. The success rate for completely eliminating small liver tumours is greater than 85 per cent.

According to Dr. Ramjee Repuka, an associate professor at IIT-Ropar, RF treatment for cancer is still an emerging area of research. It works better for liver cancer simply because liver tissue is relatively smooth and homogenous and therefore easier to image. He and his associates are more ambitious and want to tackle breast cancer, whose cells are often cluttered together and have vague boundaries, which makes successful detection extremely challenging. "Breast tissue is far more difficult to model and so there's been little attention paid to it so far," says Dr. Repuka. In preliminary investigations in his lab so far, the researchers have tested these waves on synthetic gels that mimic breast tissue. "The challenge is to find the optimum temperature and the duration to safely target the radio waves," he adds. "the next steps are to attempt this in cell lines (real tissue)."

Were such therapies to be successful, they could emerge as a competitor to chemotherapy.

**FUTURE FRONTIER**

The device, called the Proportional Integrative Derivative system, promises to make breast cancer surgery safer and less invasive. Picture shows the team at IIT-Ropar with the device. —Photo: JNMA

**Were radiofrequency ablation treatment to be successful, it could emerge as a competitor to chemotherapy**

Dr. Repuka may be helped by a report, this week, in the journal PLOS One. A team of researchers consisting of mathematicians from the Madras Christian College, Trinity College, Dublin and Christian Medical College, Velore, claim to have applied a technique — usually used for detecting damaged surface across underwater subsea structures such as bridge piers, offshore wind turbine platforms and pipelines — to distinguish healthy breast cells from infected ones.

While this work would typically be done by an expert team of pathologists, the researchers report having made a crucial step forward in automating the process while maintaining accuracy.

Professor Joy John Manmohi, from the Christian Medical College, Velore, India, said in a statement: "Detection of cancerous nuclei in high-grade breast cancer images is quite challenging and this work may be considered as a first step towards automating the process."

"There aren't any reliable estimates of how affordable such treatment is likely to be given that they are still in preliminary stages of testing."

Dr. Repuka was optimistic that it would be possible to ensure that patients would need fewer sittings or treatment than conventional radiation therapy.
HIGHER EDUCATION

Full Autonomy for IIMs Soon

A quiet revolution is happening in the HRD ministry with Javadekar set to free IIMs from government control and make them globally competitive.

By MANISH ANAND

New Delhi: In line with the stated goal of Prime Minister Narendra Modi to develop world-class institutions in the country, the government is set to grant full autonomy to Indian Institutes of Management (IIMs). Union Minister for Human Resources Development (HRD) Prakash Javadekar is expected to move the Union Cabinet soon with a legislative proposal for the same. This follows the briefing NITI Aayog vice-chairman Arvind Panagariya gave the PM, where he argued that precious time should not be wasted in waiting for reforms in the UGC and AICTE to achieve the creation of world-class educational institutions. Javadekar had earlier moved the bill for inter-ministerial discussions. The law ministry is learnt to have favourably responded to the proposal. The government is likely to table the bill in Parliament soon.

(continued on Page 6)

End to President’s Power as IIM Visitor to Review Work

By MANISH ANAND

New Delhi: Sources said that the HRD Minister told IIM Board of directors that soon they will never need to approach the government for approvals or permissions. “Only if you invite, will I or anyone from the government come to any of the IIMs. We will soon grant you the freedom that you should enjoy.” Javadekar is learnt to have said at the meeting.

Of the 21 institutions which have been identified for transformation into world class entities, 10 will be from the public sector. The rest will be private. The NITI Aayog had approved MoUs that autonomy for IIMs will fast track the set goals.

The discretion of the government through the power of the President as a Visitor to review the work of the IIMs will end, sources said, while adding that the Board of Governors will have full freedom to choose the directors. The government will relinquish its power in the IIMs’ coordination panels, sources said.

This comes as a marked departure from the times when Jawaharlal’s predecessor Santali Trust, now the Union Minister for Handloom and Textiles had locked horns with IIMs on giving up government control over matters such as appointments of directors. She had even reportedly clashed with the Prime Minister’s Office (PMO) over the functioning of the IIMs.
October 22

Online portal for IIT-JEE

Minister for school education K Pandiarajan launched an exclusive online portal to coach IIT-JEE aspirants. The site is hosted by Chennai-based career enhancement company SMART Training Resources. Students may log on to www.iitjeeonline.com.

Deccan Herald ND 22.10.2016 P-7

Centre mulls over single entrance test for engg courses

NEW DELHI, DHNS: The Centre is mulling over a single entrance test for admissions to engineering colleges across the country, buoyed by its experience with the National Eligibility-cum-Entrance Examination (NEET) for admissions to medical and dental colleges following an order of the Supreme Court.

“We are considering JEE (joint entrance examination) for admissions to all technical institutes. It is in a preliminary stage and being discussed,” a top HRD Ministry official said.

The Ministry will hold consultation with the stakeholders, including the States, he added.

“The NEET is already being conducted for admissions to medical colleges. We are now considering whether a single entrance test is feasible for admissions to all engineering colleges, keeping students’ interest in mind,” he said.

The JEE is currently conducted in two parts—JEE (Main) and JEE (Advance). The HRD Ministry, however, has decided not to continue with 40% weightage given to students’ class XII board exam marks in the nationwide test from 2017. A joint committee of Indian Institutes of Technology (IITs) and National Institutes of Technology (NITs) had disfavoured it.

The students’ scores in the board examination will remain a “crucial parameter” for determining their eligibility to write the nationwide test, it said, announcing the changes made to the JEE scheme few months back.

“For candidates to qualify for the JEE examination, they shall have secured at least 75% marks or be in the top 20 percentile in the Class XII examination conducted by respective Boards,” it said.

Students belonging to Scheduled Castes and Scheduled Tribes will be eligible to take the nationwide test if they secure 65% marks in the Class XII board examination.

A standing committee of the IITs has recommended that the JEE-Main be replaced by an Engineering Aptitude Test from next year. The Centre tried to introduce ‘one nation, one entrance’ for admission to engineering colleges under the previous UPA regime but did not succeed.

Asian Age ND 22.1.2016 P-5

Easier norms for IITs’ foreign staff

New Delhi: The government will ease regulatory norms to make it easier for foreign faculty to be appointed in the Indian Institutes of Technology (IITs).

According official sources, the Union human resource development ministry has put forward a proposal to the ministry of external affairs and the home ministry to ensure the norms related to allowing foreign faculty are made easier.

“The HRD ministry has proposed that norms related to allowing qualified foreign faculty to teach in the IITs be eased. Both MEA and home ministry have been positive in this regard during the consultations,” a source said. — PTI
100 per cent summer placement offers for IIM-K students

SPECIAL CORRESPONDENT

KOZHIKODE: Over 100 firms, including high-profile multinational companies, showed up last week to pick up for summer placement all the 364 students in the 2016-18 MBA batch of the Indian Institute of Management, Kozhikode (IIM-K).

The largest batch ever at the 20-year-old IIM-K, these students will get on-the-job training for two months next summer at 119 firms. The 100 per cent summer placement offers, that too concluded in just six days, was a record of sorts for the institution, IIM-K officials told The Hindu.

High-profile brands

The 119 firms that participated in the summer placement event were nearly 50 per cent more than last year. The high-profile brands included Microsoft, Google, Goldman Sachs, JP Morgan, American Express, and Boston Consulting Group. One company alone selected 13 students; six were selected for various projects of the Kerala government, including the Kudumbasree.

A couple of start-up companies at Infopark, Kochi, too selected internees, showing a wide variety of enterprises interested in the IIM-K products.

Most of the internees will be paid handsome stipends, the largest on offer is Rs. 1.25 lakh a month. Nearly half of the students opted for sales-and-marketing training, with finance following.
Craft an innovative education policy

The policy outcomes will be tested for the innovative measures to ensure quality of the university product.

By M R Ranganath

Mahatma Gandhi's concern about the way education is defined and packaged is slowly turning the student to earn more and hardly giving any thought to the improvement of the character. The problem remains a central focus of all global reformist agencies.

Pressures of globalising population, technological revolution, globalisation and an increasing demand for access to quality education have forced the Higher Educational Institutions (HEIs) to redefine their conventional goals. Reputed journal Nature (special issue, The University Experiment, December 2015) identifies the emerging demand for a transformation from education for knowledge and education for some transformation in the mode of knowledge and education for some game changer.

Given this global trend, the National Education Policy (NEP) 2016 has been adopted in the form of a policy with a special emphasis on both HEIs and teachers at the cutting edge of all knowledge and delivery systems. This policy is in line with the efforts of HEIs to develop initiatives for teachers. This policy is expected to make teachers more effective and to bring about a fundamental change in the way education is delivered in the country.

The success of NEP depends on its implementation. First, the emphasis on both HEIs and teachers at the cutting edge of all knowledge and delivery systems should go hand in hand. Second, existing primary, secondary and higher education systems should include a stratified system for students to choose their courses. Third, all education systems should be designed to provide a strong foundation for students to pursue higher education.

For instance, language proficiency, particularly in English, is still a major problem at the UG and PG levels. Many of the states have opted for local language at the medium of instruction even at the PG level. Absence of quality textbooks in the medium of instruction, particularly in a rapidly developing knowledge environment, has further complicated the problem.

States may establish a Centre for International Languages (CIL), modelled as a proactive inter-disciplinary environment with a focus on English, French, German, Chinese, Spanish, Japanese, Korean, Russian, etc. Activities may include:
1. Networking HEIs to use state-of-the-art communication technologies and delivery systems to create a "language learning" model for all students.
2. Development of modules in English with uniformity in GC / UG levels and "Teach the Teachers" Programmes, covering primary and secondary school education.
3. Serve as a nodal platform for the HEIs to access global expertise.
4. Offer online courses for the benefit of distance education learners and entrepreneurs.

State language could play a key role in knowledge transfer and activities to denote CIL to an "international culture hub."

For conventional courses like BA, BSc where the problem manifests the most, two approaches seem relevant: using dual delivery strategy of the Course-Based Credit System (CBCS) to insert employability and entrepreneurship compenent as one of the choices under discipline and skill-based electives, and b) develop novel Fusion Courses – BA and BSc (Industrial Production) – by customising the UGC subject templates and participation of all the three disciplines of science, humanities and management. Joint certification by the HEI concerned and the industry partners proposed Sector Skill Council could authenticate the training imparted by these courses.

Interim tussle

Creation of a separate cadre of education administrators (Eds) should be shelved. The NEP should move in the interim tussle to define positions and supremacy between academics and Eds. An added layer of turmoil is avoidable.

Key areas include cost-effective knowledge delivery systems and modern instrumentation. Although UGC has established at least 20 university accelerators (incubators), they are too few.

There is immense scope for establishing many such institutions to leverage higher education services in a big way. For this purpose, the proposed number of DIs/NICs may be increased to help states to set up unique category of institutions.

State lever University Accelerators. In Karnataka, for example, one such "knowledge hub" could leverage capacity building of 20 universities and over 4,000 colleges, some located in remote, rural areas.

The current metrics to measure research output is in terms of number of publications, without impact factor. Higher the impact factors of the journals, higher the credit given to the researchers. Given that there are very few Indian journals with high impact factors, a culture of publishing in foreign journals has taken strong roots in assessment and accreditation. Such publications also involve transfer of copyright to the journals of publication, that is transfer of intangible property rights. Publishing high quality Indian journals is the only solution.

The NEP outcomes will be tested in the belt, particularly for the innovative measures to ensure quality of the university product. The state and central governments have to play their key roles, more as enablers rather than overwhelming, administrating regimes. All stakeholders need to demonstrate a commitment to promote HEIs at centres of alternative values rather than narrowly pursuing the rampant commercial activities in the society.

True, it is a huge ask, but it has to be accomplished for succeeding in a highly competitive 21st century knowledge society.

The author is a retired Professor (Home and former Registrar, Bangalore University).

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CBSE moots restoration of Class X board exam

Javadekar says advisory board to take final call

NEW DELHI, DHNS: The CBSE has favoured restoration of compulsory board examination in its schools from the academic year 2017-18 with 80% weightage for summative (board examination) and 20% for school-based assessment.

“Students will have to secure 33% marks in each to pass the examination,” the board has proposed on the basis of feedback it received from parents, teachers in an online survey.

More than 65% parents/students and close to 65% principals, who submitted their response to the survey on the continuous and comprehensive evaluation system, favoured restoration of compulsory board examination, the CBSE said.

“As much as 57% parents/students and 65.66% principals/teachers opined that the option to choose between school based Class X examination and examination by the board had resulted in reduced commitment to learning,” it added.

A committee set up by Educational Consultant India Limited, a public sector unit, has also favoured reintroduction of the compulsory board examinations for students of Class X.

However, Union Minister Prakash Javadekar on Friday said the Human Resource De
dvelopment (HRD) Ministry has not yet taken any decision on whether to reintroduce Class X board examination or not in schools affiliated to the Central Board of Secondary Education (CBSE).

“There are demands from parents to reintroduce Class X board examinations. That’s why we have listed the issue in the agenda for upcoming meeting of the Central Advisory Board on Education (CABE). But we have not taken any decision on it,” he told DH.

The minister’s clarification came when asked if the government was going to end grading system in the CBSE schools and bring back old system of holding board examinations for Class X, which was scrapped in 2010 to introduce grading system and continuous and comprehensive evaluation (CCE) of students’ performance.

He also dismissed reports about the Centre’s plans for reintroducing compulsory board examinations for students of class X from 2018.

“The issue will be discussed at the CABE meeting. A decision on whether or not to make Class X board examination compulsory will come later,” the Union Minister said.

The CABE, which is highest advisory body on education, is scheduled to meet here on October 25.
5 labs each in 7 IITs to be brought on a par with best in the world

Times of India ND 21.10.2016 P-11

October 21

New Delhi: A meeting of IIT directors and experts on Project Vishwajyot that seeks to make IITs world class institutes decided to modernise five laboratories each in seven IITs. They will be made at par with the best in the world.

IIT directors presented detailed requirements to turn the dream of Vishwajyot into a reality. Five laboratories each at IIT Kharagpur, Bombay, Madras, Delhi, Kanpur, Guwahati and Rookee will get funding from proposed Higher Education Finance Agency, directly from government and industry.

"Now it is for the ministry to decide how it can be implemented," one official said.

IITs also said they want to bring teacher-student ratio to 1:10 from current 1:15. The HRD ministry has asked them to hire faculty, even foreigners, and said it is working out modalities to ease the process.

As for expansion of student strength to one lakh in IITs, directors said the bulk of expansion will take place in post graduate and Ph.D. Even foreign students will be taken. Already Graduate Aptitude Test in Engineering (GATE) has centres outside India in

Sanre nations (except Pakistan) and in Ethiopia.

In the meeting there was a clear division on the issue of breaking into top 100 ranking done by foreign agencies. Many directors felt that IITs should rather concentrate on improving themselves and expand the number of courses being taught including humanities.

Hari Bhoomei ND 21.10.2016 P-11

आईआईटी को वर्ल्डक्लास बनाने पर मंथन

वर्ल्डसे आईआईटी को वर्ल्डक्लास बनाने के प्रस्तावों का प्रस्ताव किया गया। टीम की नेताओं ने कहा कि आईआईटी को वर्ल्डक्लास कराने के लिए निर्देशित आर्थिक पैकेज तैयार किए जा रहे हैं।

आईआईटी का वर्ल्डक्लास बनाना के लिए निर्देशित आर्थिक पैकेज अन्तर्राष्ट्रीय उच्च शिक्षा मंत्री के समीक्षा में उम्मीद दी गई है। इसके बाद आईआईटी का वर्ल्डक्लास बनाने के लिए किया जा रहा है।

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MEA, MHA agree to ease norms to recruit foreign faculty at IITs

New Delhi: Ministries of external affairs and home have agreed to liberalise the regulatory regime so that foreign faculty can be appointed at IITs.

In a meeting among representatives of external affairs, home and HRD ministries earlier this month, foreign ministry officials had said except for teachers coming from Prior Requirement Countries (PRC), faculty selected for teaching in India should not need prior political clearance. MEA had also said that for securing political clearance, the examination of the details of the mode of requirement is not required.

Subsequently, the education secretary has written to his counterparts in MEA and MHA for changes as per the agreed issues.

MEA officials had said in case of faculty hiring there should be no need for prior clearance since antecedents of applicants get checked at the time of granting visa. MEA had also said it is moving a Cabinet proposal to relax work visa regime by bringing down the threshold annual salary to Rs 9.1 lakh per annum from the current limit of Rs 16.7 lakh ($25,000). MEA had said that once this proposal secures Cabinet approval, there will be relief for foreign teachers in IITs, since they will be paid above this threshold.

On the issue of overseas citizens of India (OCI) teaching in India, MHA had argued that under section 7(R) of the Citizenship Act, OCIs are not permitted to take government employment. However, HRD ministry said that since IITs are autonomous institutions which only get grants-in-aid by central government, therefore its employees are not classified as government employees. Arguing that it is a settled law, these officials said employing OCIs will not be a violation of Citizenship Act. MHA said it will examine it again.

In case of foreign participants in scientific conferences, HRD wanted that since these meets are held by premier institutions like IITs after a great deal of consultation the system of further approval of MEA and MHA should be done away with, especially since antecedents of the visiting participants get checked at the time of visa application. It was decided that till a policy decision is taken, MEA should take a maximum of eight weeks to decide on proposals for conferences.
Times of India ND 21.10.2016 P-09

‘Inside air in AC buildings far worse’

**TIMES NEWS NETWORK**

New Delhi: Indoor air quality in centrally airconditioned buildings is far worse than outside or in naturally ventilated buildings, according to a recent study.

IIT Delhi professor Mukesh Khare, whose team conducted the study, said on Thursday that the city master plan should address these issues and ensure that schools, hospitals, residences are away from sources of pollution.

Khare’s team is currently working on a study on air quality inside two metro stations—Chandni Chowk and Patel Chowk—in comparison to the quality outside. The study results will be shared with Delhi Metro Rail Corporation (DMRC) before they are made public in a couple of months.

Khare told a news agency, “Premises of metro stations have high concentration of PM 2.5, at places over 600 micrograms per cubic metre. Even level of PM10 remains high. Not only the air ducts suck polluted air, but pollutants get carried inside through clothes people wear as well, like on thorough textures of shirts, through shoes.”

“We have used sophisticated equipment from IIT Lab to measure PM10, PM2.5 and PM. We have also used samplers for gaseous pollutants to measure levels inside and outside the metro stations. We have also conducted a traffic survey outside these stations. But the results cannot be revealed before they are shared with DPCC,” said Khare.

According to TK Joshi, director, centre for occupational and environmental health, indoor pollution has been a problem that has largely gone unnoticed. “People spend most of their time in cars, office or home, but are unaware of how polluted the air inside may be. Use of room fresheners can also be harmful as it contain methyl alcohol. Benzene present in most cars is a silent killer,” said Joshi.

Khare referring to earlier research studies published by their team said, “Air is far more polluted in centrally air conditioned buildings because the ventilation is not maintained. Naturally ventilated buildings can have better air quality provided they are located away from pollution sources.”

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Economic Times ND 21.10.2016 P-18

This Startup Helps You Scour the Depths

**Hot Startup**

Planys Technologies

Carries out Underwater Robotic Inspections for Ports, Oil and Gas Industry

Shadma Shailhi@timesgroup.com

**Bengaluru:** In 2013, three robotics enthusiasts pursuing engineering at Indian Institute of Technology, Madras, had set out to win a contest for the best student-made underwater vehicle in India. Four years down the line, the trio—Tanuj Jhunjhunwala, Vineet Upadhyay and Rakesh Srivastava—are founders of Planys Technologies, a startup that provides underwater robotic inspection and survey services using robots or remotely operated vehicles (ROV).

The IIT Madras incubated startup incorporated in 2015 already counts Chennai Port Trust, Vizagapattanam Port Trust and L&T Kattupalli International Container Terminal among its customers. Planys is a result of the profound interest invoked from companies in the oil and gas industry in Jhunjhunwala’s master’s thesis project demonstrating an underwater ROV used for pipeline inspection... The challenge was to develop a robot in points, said Jhunjhunwala. He says that was the point when they decided to incorporate Planys’ Technologies as a startup that could provide underwater inspection services. The founding team of the startup included two IIT Madras professors, Krishnan Balasubramaniam and Prabhakar Gopinath.

Team Planys with co-founder Vineet Upadhyay (second from right)

The team’s first underwater robot, Mike, went through several iterations, each time there was an industry demand or new requirement.

In the last one year Mike has undergone 200 hours of operation, Jhunjhunwala told IT. The undersea robot or ROV built by the team operates as a data capturing platform, using sensors for environment monitoring, such as evaluating thickness mapping and ultrasonic corrosion.

Planys Technologies operates on a hardware-as-a-service premise by deploying the robot at the client’s location and providing detailed analysis. The clients in turn are charged service fees depending on their requirements.

The underwater robot was built keeping in mind industrial applications, including inspection of ports and ships. However, the startup has also found applications for the oil and gas sector.

Jhunjhunwala said the response to the services provided by the underwater robot has been exceptionally good, considering the lack of technologies available in the domain.

"Currently, for inspection jobs, ports employ human divers who come with limitations," he said. "Planys’ ROVs have unlimited endurance, are highly portable, cost-effective and convenient to human operators," Jhunjhunwala said.

The startup had raised Rs 1.75 crore through an angel round of investment in December last year through Chennai and Singapore chapters of KIIT Forum.

S Gopal, member of KIIT Forum, said he believed that Planys was among startups building cutting-edge technology out of India.

"The team has done from 16 to 17 jobs in the past one year and has already been getting repeat orders by some established clients. That is a great compliment and boost for their team," he said.

The market Planys Technologies operates in is a fairly unorganised one, giving the startup an early mover advantage. Having tasted success in its early days, the startup now aims to cover the breadth of inspection solutions from customised design and fabrication of robotic platforms to integrated sensing and diagnostics.
Deccan Herald ND 21.10.2016 P-07
IIT-Madras signs pact

The Indian Institute of Technology, Madras (IIT-M) on Thursday announced that it has signed a Letter of Intent (LoI) with Fraunhofer Institute IWU, Germany, to establish an Applied Centre for Advanced Automotive Research (CAAR), DIHS reports from Chennai.

The CAAR is envisaged to be a centre of excellence focusing on providing research solutions to the automotive industries through focused R&D in association with the talent and capabilities at IIT Madras and the experience and delivery mechanisms developed at the Fraunhofer Institutes in Germany. Some of the areas of interest for CAAR will include frontiers in Lightweighting, Advanced Manufacturing, Emission, NVH, Engine Design and Novel Materials of interest to the automotive sector.

October 20

Indian Express ND 20.10.2016 P-11

Bulk of increase in seats should come from new IITs, say institute heads

Rashtriya Sahara ND 20.10.2016 P-09

"पृष्ठभर" विकास की योजना में हिस्सा लेने को आमंत्रित किया गया गुवाहाटी। आरआईटी गुवाहाटी ने आरआईटी दो केंद्रों के आधार पर "पृष्ठभर विकास" कर्मचारियों के लिए पूर्ण स्वास्थ्य की स्वास्थ्य सेवा देने की आमंत्रित किया है। आरआईटी गुवाहाटी का यह प्रयास यहाँ से जारी राष्ट्रीय विकास स्वास्थ्य सेवा के लिए केंद्र के लिए शामिल है, जो 30 नवंबर और 22 दिसंबर के बीच होगा। विकास में काम करने वाले दलित किस्म की होंगे और उनके साथ आए अन्य विशिष्ट किस्म के लिए प्रस्तावित कर दीजिए।
IIT-Kharagpur develops app that can detect malaria parasites in the body


KHARAGPUR: Researchers from the Indian Institute of Technology, Kharagpur, have developed a potentially life-saving mobile application which can detect malaria-causing micro-organisms in the body.
It's the fastest way to detect malaria, they claim.

The software, installed on a smartphone connected to a microscope, can examine images of blood samples and identify the malaria-causing parasite. Tests have been conducted on 200 photographs from 80 patients, and the app performed accurately on 90% of them.

Professor Chandan Chakraborty and his team from IIT-Kharagpur’s Biomedical Imaging Informatics Lab conducted research for the app, with help from Dr. Ashok Kumar Maity, a pathologist from Midnapore Medical College and Hospital.

**Business Line ND 20.10.2016 P-06**

IIM-Calcutta to incubate 100 start-ups by 2020

Saibal Chattopadhyay, Director, IIM-Calcutta (right), and Ashok Banerjee, Professor, IIM-C ASHOK CHAKRABORTY

OUR BUREAU
KOLKATA, OCTOBER 19

IIM-Calcutta is planning look to incubate around 100 start-ups by 2020. The institute will hold a competition, wherein 5,000-odd ideas will be short listed, said Professor Ashok Banerjee of IIM-C.

As of now, the IIM has 14 incubatees, and another 6-8 are expected to be added by November.

Apart from mentorship and hand-holding, incubatees will also get access to technology and IIM’s alumni network. This apart, the institute will pick up a maximum of 3 per cent stake in the start-ups; it will also invest in some firms.

IIM-C, Banerjee said, has already invested around ₹1 crore across six start-ups. Investments into these start-ups come as seed capital.

IIM-C Director Saibal Chattopadhyay said the Innovation Park, which started two years ago, has also got the mandate to mentor 40 social enterprise start-ups, under the INVENT scheme, for a period of three years.

The INVENT programme is jointly funded by the Technology Development Board and the Department for International Development of the UK government. It is aimed at promoting social enterprise in low-income States. The start-ups under the INVENT programme will be for-profit enterprises and receive an initial seed funding of up to ₹25 lakh.
JNU students ‘lock up’ officials

MISSING STUDENT The JNU students’ union blocks admin building and asks the authorities to file a missing person report

Hema Kausar

NEW DELHI: Students blocked the Jawaharlal Nehru University (JNU) administrative building, continuing the vice-chancellor and other officials demanding FIR in connection with the case of a missing student.

The JNU students’ union said students had gathered at the gates of the building and won’t move unless their demands are met. “We demand an FIR from JNU’s side. All students involved in violence should be declared out of bounds. We have even sent plans of JNU for the officials as they are not coming out,” said Mohit Pandey, president of JNUSU.

An official who was inside said, “They have confined us in the building. This is an unlawful activity. The VC, pro-vice-chancellor and other officials are locked inside. The people want to talk to the students, but nothing came out of it.”

A student of School of Biotechnology, Najeeb Ahmad, allegedly went missing on Sunday. The JNU students’ union has alleged that students belonging to RSS-affiliated Akhil Bhartiya Vidyarthi Parishad had beaten him up while other students alleged that Ahmad had dropped a student. Further, in a hearing, officials said that more CCTV cameras will come up at the campus to ensure safety of the students in the aftermath of the recent incident.

Times Of India ND 19.10.2016 P-17

IIT directors oppose non-resident students

Aishwarya Mukul@timesgroup.com

New Delhi: IITs have shown reluctance to the HRD ministry’s idea of having non-resident students at the undergraduate level. Sources said most of the IIT directors have expressed serious reservations against the idea arguing that non-resident students will change the character of IITs. They have argued that at the undergraduate level, it is important that students imbibe the spirit of the campus and be a part of the IIT ecosystem.

“IIT is also about the larger environment of free debate and liberal atmosphere. Most of our undergraduate courses are most sought after,” one director said, adding that IITs are not averse to having non-resident students at post-graduate and doctorate level.

IITs feel that the institutes will have to get involved with the well-being of students even if they live outside the campus. At the IIT Council meeting last month, many directors had supported the idea subject to clearance from their respective senates. Sources said senates of many IITs have not shown any enthusiasm. On the contrary, chairperson of one IIT has even suggested that IITs should source the job of hostel upkeep to outside agencies.

The idea of non-resident students was mooted to help expand student strength of IITs at undergraduate/post-graduate and doctorate level to one lakh by 2020.

HRD PROPOSAL

Money that IITs get from outside agencies, sources said, can be used to subsidise hostel charges of needy students. However, a source clarified that this is one of the many ideas on running of hostels.
GAS CHAMBERS Industries and power plants contribute maximum amount of poisonous gases and particles to Delhi's air, showed a study by IIT Kanpur

Kumar Sambhav Shrivasata

NEW DELHI: Industries and power plants in and around Delhi are the biggest source of pollutants, SO2 and NOx, that cause breathing ailments in the city. A study by Indian Institute of Technology (IIT) Kanpur revealed that power plants, industrial clusters, restaurants and diesel generators are the primary source of pollution from sulfur dioxide (SO2) and nitrogen oxides (NOx). Nine months have passed since the findings but nothing has been done to implement the recommendations to control pollution from industrial sources.

The study says, almost 96% of the 142 tonnes of SO2 and 60% of the 312 tonnes of NOx emitted in Delhi's air every day, comes from these sources. Breathing SO or NOx for short periods can cause adverse respiratory effects such as airway inflammation, bronchoconstriction and asthma symptoms. The pollutants harm health by reacting in the atmosphere to form sulfate or nitrate fine particles, PM2.5, that chock airways to lungs.

Apart from SO2 and NOx, these sources also directly contribute close to 19% of the PM2.5 and 14% of PM10 levels in the city (see graphic).

In the past few months, the government has taken some immediate measures to control pollution from vehicles and farm fires, however, it has shied away from implementing long-term measures. “We have implemented measures such as total control on garbage burning in the city and cleaning of road dust but coordinating other measures to control industrial pollution will take time. We need to think of the alternatives first,” said a senior official in the Delhi Pollution Control Committee (DPCC) who did not wish to be named.

HOW INDUSTRIES POLLUTE DELHI

Several small and medium-size industries were relocated from Delhi in the 1990s as a measure to control pollution but that has not been enough. The city has two power plants — at Rajghat and Badarpur — and about 20 big industries (having stack height more than 20m) which contribute more than 90% of the SO2 and more than half to the NOx emissions, the IIT Kanpur study says.

The two power plants are also major sources of fly-ash. Officials in the environment department of the Delhi government asserted that they have implemented strict measures to control fly-ash. However, they admit that fly-ash from poorly-maintained disposal ponds becomes a problem in summers. Coal and fly-ash contribute about 30% of PM10 in summers, the study said.

The city also has about 25 industrial clusters, many in close proximity to residential areas, emitting more than 5.6 tonnes of SO2, 1.9 tonnes of NOx, 1.4 tonnes of PM2.5 and 1.6 tonnes of PM10 per day, the study says. “Many of these industrial units use low-quality fuel, including furnace oil, illegally,” said Bhuire Lal, chairman of the Environment Pollution (Prevention and Control) Authority (EPCA). While the government has banned the use of oil with over 300 ppm sulphur content in the city, Lal said the government has not conducted any inspections to check if the industries are violating the fuel norms.

TANDORS AND DG SETS

The DPCC records show there are about 9,000 hotels and restaurants in the city that use coal, mostly for tandors. They contribute about 3.5 tonnes of PM10, 1.8 tonnes of PM2.5 and 2.7 tonnes of SO2 in Delhi per day and are a major source of fly-ash, the IIT Kanpur study said. It recommended that restaurants with a sitting capacity of more than ten should not use coal and shift to electric or gas-based appliances.

Besides, diesel generator (DG) sets are significant contributors to the pollution. As per the study, close to 28 tonnes of NOx (6% of the total NOx) is produced by DG sets in the city per day. There is a minimum two-hour power cut in the city per day, especially during summer and the use of DG sets is common in shopping complexes and industrial units. The study recommended that all DG sets of size 2KVA, or less, should not be allowed to operate; fuel of more than 500ppm sulphur content should be checked and solar powered generation, storage and inverter should be promoted.

An official in the DPCC said the measures were not practical. “Tandors are a part of Delhi’s food culture. Why would the restaurants want to move away from it? Do we have a better alternative? Also, it is not possible to inspect each and every DG set. The only solution to from DG sets is uninterrupted power supply,” he added.

OUTSIDE POLLUTERS

The study also said that there were at least 13 thermal power plants (TPP) with a capacity of over 11,000MW within a radius of 300km of Delhi, which contribute majorly to secondary particles. Secondary particles, formed from chemical transformation of SO2 and NOx gases, have been the most consistent sources of PM2.5 and PM10 levels in Delhi both in summer and winters. As per the study, the North-West winds transport SO2 emitted from large power plants and refineries in the upwind of Delhi and transform it into sulfates.

What is more worrying is that nine more coal-fired power plants are under construction and 36 units are in the pipeline within 500km radius of Delhi. Our satellite-based analysis revealed that there is a direct co-relation between increase in coal consumption and increase in SO2 and NOx levels in the NCR,” said Nandikesh Sivilingham of Greenpeace India.

The IIT study recommended that de-SOx-ing and de-NOX-ing — processes of removing SO2 and NOx through chemical reactions at the production stage — at all power plants within 300km of Delhi should be carried out. This could reduce PM10 concentration approximately by 99 microgram per cubic metre (µg/m3) and PM2.5 concentration by 57 µg/m3, the study said. The government has not taken any step in this direction yet, officials in the environment department told HT.
IIT-Roorkee preparing plan for Dal preservation

Srinagar, October 18

The government today informed the Jammu and Kashmir High Court that the vision document for the preservation of the Dal Lake was being prepared by the IIT-Roorkee and would be received by the J&K Lakes and Waterways Development Authority (LAWDA) soon.

In its status report, LAWDA has given details of 14 persons whose illegal constructions have been demolished by it. “LAWDA to file report of further action taken in accordance with law against these violators,” the High Court said in its directions today.

Meanwhile, the HC today asked the management of Hotel Grand Palace to show cause as to why action shall not be taken against them for not complying with the court orders over the replacement of its sewage treatment plant.