

Newspaper Clips

October 19-21, 2016

October 21

Times of India ND 21.10.2016 P-11

5 labs each in 7 IITs to be brought on a par with best in the world

TIMES NEWS NETWORK

New Delhi: A meeting of IIT directors and experts on Project Vishwajeet 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 Vishwajeet into a reality. Five laboratories each at IIT Kharagpur, Bombay, Madras, Delhi, Kanpur, Guwahati and Roorkee 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 1:35. The HRD ministry has asked them to hire faculty, even fo-



IITs also said they wanted to bring the teacher-student ratio to 1:10

reigners, 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

Saarc 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.

Japan agency's scholarships for 30 IITians

Hyderabad: Thirty graduating students of Indian Institute of Technology, Hyderabad will be offered scholarships by Japan International Cooperation Agency (JICA) to study in Japanese universities. These scholarships would be offered to graduating students of IIT-H to pursue masters or PhD and would cover tuition fees and logistics.

The project has been initiated by JICA to facilitate development of research networks between institutions of higher learning and industrial clusters in Japan with IIT-H "that would lead to excellence in education and applied research in science and engineering".

Hari Bhoomi ND 21.10.2016 P-11

आईआईटी को वर्ल्डक्लास बनाने पर मंथन

हरिभूमि ब्यूरो. नई दिल्ली

देश के पुराने प्रौद्योगिकी संस्थानों की सूची में शुमार सात आईआईटी संस्थानों को विश्वस्तरीय बनाने की कवायद केन्द्रीय मानव संसाधन विकास मंत्रालय (एचआरडी) में शुरू हो गई है। इस बाबत बृहस्पतिवार को मंत्रालय में इन सभी आईआईटी के निदेशकों की एक अहम बैठक हुई, जिसमें इससे जुड़े विश्वजीत प्रोजेक्ट को लेकर प्रेजेंटेशन दिए गए। आने वाले समय में एचआरडी मंत्रालय में इस मामले को लेकर कोई अंतिम निर्णय लिए जाने के बाद ही फंड का आवंटन किया जाएगा। गौरतलब है कि पुराने आईआईटी संस्थानों में आईआईटी बॉम्बे, दिल्ली, मद्रास, खड़गपुर, गुवाहाटी, रूड़की और कानपुर शामिल हैं। इन सभी को विश्वजीत योजना में शामिल किया गया है।

सात पुराने आईआईटी संस्थान कवायद में शामिल



भारतीय प्रौद्योगिकी संस्थान दिल्ली
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इन मुद्दों पर हुई चर्चा

बैठक में आईआईटी संस्थानों को फंड के मामले पर स्वायत्ता दी गई है। इसमें फंड बढ़ोतरी का अधिकार आईआईटी काउंसिल के पास ही रहने देने की बात कही गई है। आईआईटी संस्थानों में विदेशी फैकेल्टी और स्टूडेंट अनुपात को दुरुस्त किया जाएगा। अभी यह 1 अनुपात 15 है, जिसे भविष्य में 1 अनुपात 10 किया जाना है। विश्वजीत परियोजना के तहत आईआईटी संस्थानों की पांच प्रयोगशालाओं को विश्वस्तरीय बनाया जाएगा। बैठक की अध्यक्षता मंत्रालय में उच्च-शिक्षा विभाग के सचिव विनयशील ओबराय ने की। इसके अलावा एचआरडी के तमाम विभागीय आला अधिकारी भी बैठक में मौजूद थे।

विश्वजीत प्रोजेक्ट

आईआईटी काउंसिल की बीते अगस्त महीने में हुई बैठक में विश्वजीत प्रोजेक्ट को मंजूरी दी गई थी। इसमें सात पुराने आईआईटी संस्थानों को 20 अक्टूबर को मंत्रालय के समक्ष अपने प्रस्तावों के साथ प्रेजेंटेशन देने थे। आईआईटी संस्थानों में 20 फीसदी पदों पर विदेशी फैकेल्टी नियुक्त किए जाने से लेकर ऑफ कैम्पस पीएचडी छात्रों को मंजूरी, स्नातक और परास्नातक स्तर पर 20 फीसदी विदेशी छात्रों को एडमिशन व छात्र फैकेल्टी अनुपात 1:7 किया जाना प्रोजेक्ट में शामिल है।

आईआईटी बॉम्बे के निदेशक देवांग खडकड़ ने कहा कि आज की बैठक में विश्वजीत प्रोजेक्ट के तहत आईआईटी संस्थानों ने अपने प्रस्तावों को लेकर प्रेजेंटेशन दिया है। आने वाले समय में इस मामले में तस्वीर पूरी तरह से साफ हो जाएगी। एक

आईआईटी का तर्क

पर मंत्रालय को अपना प्रस्ताव सौंपा है। एचआरडी की ओर से आधिकारिक मंजूरी मिलने के बाद ही फंड वितरण का काम शुरू होगा।

अन्य आईआईटी के निदेशक का कहना है कि अभी हमने इस मामले में प्रस्ताव सौंपा है। एचआरडी की ओर से आधिकारिक मंजूरी मिलने के बाद ही फंड वितरण का काम शुरू होगा।

Times of India ND 21.10.2016 P-11

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

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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.

MHA officials had said in case of faculty hiring there



INDIA CALLING: The MHA 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

should be no need for prior clearance since antecedents of applicants get checked at the time of granting visa. MHA 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 lakhs

(\$25,000). MHA 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 7B(II) 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.

Hindustan ND 21.10.2016 P-17

योजना में सात पुराने संस्थानों को शामिल किया गया

आईआईटी अपनी फीस खुद नहीं बढ़ा सकेंगे

पहल

नई दिल्ली | विशेष संवाददाता

जिन सात पुराने आईआईटी संस्थानों को विश्वजीत योजना में शामिल किया जाएगा, उनकी फीस पूर्व की भांति ही रहेगी। इन संस्थानों ने कहा कि संस्थानों को विश्व स्तर की रैंकिंग के योग्य बनाने का यह मतलब नहीं है कि फीस में बढ़ोतरी की जाए। संस्थानों की फीस भविष्य में भी आईआईटी काउंसिल ही तय करेगी।

केंद्र सरकार सात पुराने आईआईटी को विश्व स्तरीय रैंकिंग में स्थान दिलाने के लिए प्रयासरत है। सरकार चाहती है

विश्वजीत योजना

- एचआरडी मंत्रालय की आईआईटी निदेशकों के साथ बैठक
- हर आईआईटी पांच-पांच प्रयोगशालाओं को अपग्रेड करेगा

कि टॉप सौ संस्थानों में ये आईआईटी शामिल हों। अभी आईआईटी टॉप 500 में ही स्थान हासिल कर पाते हैं। इसके लिए विश्वजीत योजना तैयार की जा रही है। इसे लेकर सात आईआईटी निदेशकों की गुरुवार को दिल्ली में बैठक हुई।

बैठक के बाद आईआईटी मुंबई के निदेशक देवांग खक्कर ने बताया कि यह पहली बैठक थी। इसमें आईआईटी

निदेशकों ने अपनी मौजूदा योजनाओं के बारे में बताया और भविष्य की योजना का ब्योरा रखा। इस दौरान सहमति बनी कि बेहतरीन शोध कार्य के लिए प्रत्येक आईआईटी पांच प्रयोगशालाओं को अपग्रेड करेगा। साथ ही शिक्षकों का अनुपात बेहतर करेगा। अभी 15 छात्रों पर एक शिक्षक है जिसे 10 पर एक किया जाएगा। विदेशी शिक्षकों एवं छात्रों की नियुक्त की जाएगी।

नई विषयों को आईआईटी संस्थानों में पढ़ाने की शुरुआत की जाएगी। शोध बढ़ाने, अंतरराष्ट्रीय समझौतों की संख्या बढ़ाने आदि मुद्दों पर भी चर्चा की गई। समझा जाता है कि इस मुद्दे पर कुछ और बैठकें होंगी जिसके बाद योजना का अंतिम प्रारूप तैयार किया जाएगा।

Times of India ND 21.10.2016 P-09

'Inside air in AC buildings far worse'

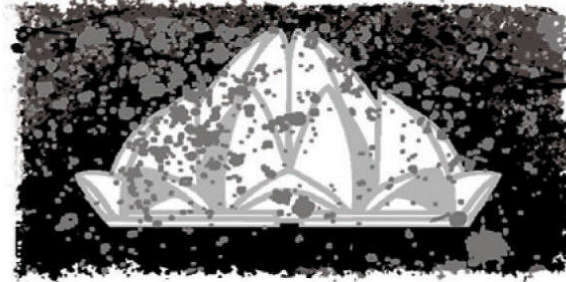
TIMES NEWS NETWORK

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,



LET DELHI BREATHE

WHAT ARE YOU SMOKING?

"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 the rough 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 re-

sults 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."

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

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Bengaluru: In 2012, 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 Sirikonda — 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, Visakhapatnam Port Trust and L&T Kattupalli International Container Terminal



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

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 solve their pain 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 Prabhu Rajagopal.

The team's first underwater robot, Mike, went through several iterations, each time there was an industry demand or new require-

ment. In the last one year Mike has undergone 700 hours of operation, Jhunjhunwala told ET.

The underwater robot or ROV built by the team operates as a data capturing platform, using sensors for environment monitoring, such as for 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 come at no risk 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 Keiretsu Forum.

S Gopal, member of Keiretsu Forum, said he believed that Planys was among startups building cutting edge technology out of India. "The team has done some 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.

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), DHNS reports from Chennai.

The CAAR is envisaged to be a centre of excellence focusing on providing research solutions to the auto-

motive 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, Engineering Design and Novel Materials of interest to the automotive sector.

October 20

Indian Express ND 20.10.2016 P-11

TARGET 1 LAKH BY 2020

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

RITIKA CHOPRA
NEW DELHI, OCTOBER 19

WITH THE government pressing for a significant increase in the student strength across all 23 IITs, the older institutes insist that a bulk of the proposed hike in B.Tech seats should come from the 16 IITs set up in the last decade.

Speaking to *The Indian Express*, IIT Roorkee director Pradipita Banerji said admitting more undergraduate (UG) students would be "unsustainable" for the institute. "Our B.Tech strength is already at an unmanageable level. We ad-

mit the third highest number of undergraduate students among the seven older IITs. We take in 570 undergraduate students each year. Even if we build more hostel rooms and lecture halls, how do we build laboratories? There are now 16 new IITs and that's where you should increase the B.Tech numbers significantly. IIT Roorkee will focus on taking in doctoral scholars," he said.

For IIT Delhi, too, admitting more B.Tech students through the Joint Entrance Examination (JEE) is a big ask. "It will be difficult to increase UG seats as we are already saturated. Moreover,

from the world ranking point of view, we are being pushed to improve our research output. So hiking B.Tech numbers will not help us. We now need more PhD students," he said.

"All the 16 new IITs, except for maybe Indore and Hyderabad, admit less than 200 students every year in their undergraduate programmes. If they double their intake, the IITs can collectively meet the government's target of 1 lakh students by 2020. We (the older IITs) need to focus on research. We can add a few B.Tech seats, but it won't be a significant change," said IIT Guwahati direc-



P. Banerji, Gautam Biswas

tor Gautam Biswas.

The IIT Council — the highest decision-making body of the engineering schools — had on August 23 given an in-principle approval to the HRD ministry's suggestion to increase their total student strength from 72,000 to

1 lakh by 2020. To achieve this, the ministry had suggested that the IITs could waive the condition which makes students stay compulsorily on campus. In other words, they will admit more non-resident students. All the 23 IITs were asked to assess their capacity and resources and come up with a roadmap on how to achieve the proposed increase.

However, as first reported by *The Indian Express* on October 18, the older IITs, citing stretched resources, did not agree to add more seats to their four-year B.Tech programmes. They were more keen on increasing re-

search and M.Tech students.

According to the feedback received by the HRD ministry this month, only second-generation IITs in Hyderabad, Mandi, Ropar, Patna and Jammu will increase their undergraduate student strength from next year.

IIT Roorkee director Banerji added: "Admitting non-resident students is not feasible. A 1,500 square feet apartment in Roorkee costs close to a crore today. Even if three-four students were to reside in that space outside the campus, any landlord would expect each of them to pay at least Rs 10,000 per month.

That exceeds the HRA of a PhD student. This is too expensive for undergraduate students."

However, IIT Madras director Bhaskar Ramamurthi said the council's decision to increase seat strength will be implemented.

A clarification issued by HRD ministry Tuesday quoted him as saying, "Undergraduate intake in 2016, the student strength in the IITs stands around 76,000 (including the post-graduate and research students). For 2017, IITs have promised to admit nearly 11,000 students in the undergraduate courses. Keeping up this trend, the IIT system is well

on its way to raise the undergraduate student intake to about 13,000-14,000 by 2020. Added to this, an equal number of Post graduate and research students would be admitted raising the total IIT strength to 1 lakh by 2020. The IITs are committed to implement the decision of the IIT Council taken in this regard."

Ramamurthi said, "I think the council's decision has been misunderstood. The IITs collectively have to increase the number of students to one lakh. It's not that the older IITs will not admit (more), but the bulk of the increase has to come from the new IITs."

Nai Duniya ND 20.10.2016 P-05

देश भर के आईआईटी, आईआईएम के 800 युवा चिंतक जुटेंगे भोपाल में

विशेष संवाददाता। नई दिल्ली।

अगले महीने यानी 12 से 14 नवंबर के बीच देश भर के आईआईटी, आईआईएम व विश्वविद्यालयों के करीब 800 युवा चिंतक और विचारकों का एक बड़ा जमाबड़ा भोपाल में होगा। जो देश के तमाम ज्वलंत विषयों और संस्कृतियों को लेकर चर्चा करेंगे। जिसका विषय लोक मंथन होगा। इस कार्यक्रम का शुभारंभ देश के राष्ट्रपति प्रणव मुखर्जी कर सकते हैं। मध्य प्रदेश के मुख्यमंत्री शिवराज सिंह चौहान ने बुधवार को राष्ट्रपति मुखर्जी से मुलाकात कर उन्हें कार्यक्रम का औपचारिक न्यौता सौंपा।

मध्य प्रदेश के मुख्यमंत्री शिवराज सिंह चौहान बुधवार को दिल्ली प्रवास पर थे। इस दौरान उन्होंने नईदुनिया से चर्चा में भोपाल में आयोजित होने वाले लोक मंथन कार्यक्रम की जानकारी दी। साथ ही बताया कि यह

अपनी तरह का देश का पहला और अनूठा कार्यक्रम होगा। जिसमें युवा चिंतक और विचारकों को मौका दिया गया है। उन्होंने बताया कि इस कार्यक्रम का आयोजन मप्र सरकार का संस्कृति विभाग द्वारा किया जा रहा है। इसके लिए देश भर के सभी विवि, आईआईटी और आईआईएम को न्यौता भेजा जा रहा है। एक सवाल के जबाब में मुख्यमंत्री चौहान ने बताया कि यह आयोजन सिर्फ चर्चा तक ही सीमित नहीं होगा, बल्कि इन चर्चा से निष्कर्ष तक भी पहुंचा जाएगा। उन्होंने बताया कि मंथन में देश से जुड़े तमाम विषयों को शामिल किया जाएगा।

सूत्रों की मानें तो इस कार्यक्रम का लक्ष्य आईआईटी, आईआईएम और विवि में शिक्षा ले रहे इन युवाओं को देश प्रेम और संस्कृति से जोड़ना मुख्य मकसद है। वह इस तरह से मंथन और वैचारिक चिंतन के जरिए उन्हें इसकी घुड़ी देना चाहते हैं।

Rashtriya Sahara ND 20.10.2016 P-09

'ईशान विकास' योजना में हिस्सा लेने को आमंत्रित किया गुवाहाटी। आईआईटी गुवाहाटी ने आगामी दो हफ्ते के आवासीय केंद्रीय 'ईशान विकास' कार्यक्रम के लिए पूर्वोत्तर राज्यों के स्कूलों से आवेदन आमंत्रित किया है। आईआईटी गुवाहाटी की तरफ से जारी प्रेस विज्ञप्ति में बुधवार को बताया गया कि यह योजना नौवीं और ग्यारहवीं कक्षा के विज्ञान के छात्रों के लिए है जो 30 नवम्बर और 22 दिसम्बर के बीच होगा। विज्ञप्ति में कहा गया कि चयनित छात्रों और उनके साथ आने वाले शिक्षकों को दौरे के समय हवाई यात्रा, भोजन और ठहरने की सुविधा उपलब्ध कराई जाएगी।

Hindustan Times ND 20.10.2016 P-01

With 'world class' tag, India's best universities may have higher fees

Neelam Pandey

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NEW DELHI: Some of India's premier universities and technical institutes that can earn a new world-class institution tag will be free to fix their own fee, triggering fears of a fee hike.

Government education institutes can apply for the tag if they fulfil certain criteria such as a healthy faculty-student ratio and a top 25 position under the National Institution Ranking Framework (NIRF).

Delhi University, Jawaharlal Nehru University, the University of Hyderabad, and a number of Indian Institutes of Technology (IITs) have

UNIVERSITIES AND INSTITUTES THAT MEET CRITERIA FOR PREMIER LABEL WILL GET AUTONOMY TO FIX FEE STRUCTURES

the required NIRF ranking.

The proposed criteria vary for private or deemed universities. But, even the 10 private universities selected as world-class institutions will have the freedom to determine student fee. These private universities will not get any government financial backing, though.

For their part, the private institutions should have a corpus of ₹200 crore, a guaranteed pipeline for another ₹500 crore, and a credible plan that additional resources are available on demand — not less than ₹1,000 crore.

A government official tried to allay fears that the fee freedom could let institutes burden students with arbitrary hikes.

"A separate mechanism will have to be introduced so that the selected institutes would be able to increase their fee structure independently. But it is not necessary that they increase the fee if they can get adequate funds through other mechanism," the official said. **CONTINUED ON PAGE 6**

India's best universities may have higher fees

The government announced to set up 20 such institutions in the 2016-17 budget, reserving half of these for private institutes.

The University Grants Commission (UGC) has placed a set of proposed regulations and guidelines for these institutions, which are up for public scrutiny and feedback till October 28.

Government institutions, the guidelines say, will have "the freedom to determine the domestic student fees" in compliance with rules of their professional regulatory councils,

but no student can be sent away for failing to pay. Such students should be provided education loans or scholarships.

The institutions will be free to admit foreign students, but only 30% of the seats. They could be allowed to fix fee of foreign students without restrictions.

Other than rankings and good faculty strength to get the tag, both private and public institutes must have modern laboratories and a large campus with adequate space for expansion.

IIT-Kharagpur develops app that can detect malaria parasites in the body

<http://timesofindia.indiatimes.com/city/kolkata/IIT-Kharagpur-develops-app-that-can-detect-malaria-parasites-in-the-body/articleshow/54957400.cms>



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 ASHOKE CHAKRABARTY

OUR BUREAU
Kolkata, October 19

IIM-Calcutta is planning to 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.

Hindustan Times ND 20.10.2016 P-03

JNU students 'lock up' officials

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

Heena Kausar

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NEW DELHI: Students blocked the Jawaharlal Nehru University (JNU) administrative building, confining the vice-chancellor and other officials, demanding an 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 plates of food for the officials as they are not coming out," said Mohit Pandey, president JNUSU.

An official who was inside said, "They have confined us in the building. This is an unlawful activity. The VC, rector, dean and other officials are locked inside. The rector went to talk to the student but

nothing came out of it."

A student of School of Biotechnology, Najeeb Ahmed, allegedly went missing on Saturday. The JNU students' union has alleged that students belonging to RSS-backed Akhil Bharatiya Vidyarthi Parishad had beaten him up while other students alleged that Ahmed had slapped a student.

Earlier in the day, 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.

"The main gate has a low resolution CCTV camera. It will be replaced with high resolution camera soon. This isn't for surveillance, but for students' security," said rector Chintamani Mahapatra.

VC M Jagadesh Kumar added, "The CCTV cameras will be installed at all important locations inside the campus."

He said that the university's pri-



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.

HT FILE

mary concern is to find the missing student. "The other issue is about the alleged violence that happened in the hostel. Chief proctor is investigating the matter," he said.

At least 12 students have been asked to depose before the proctorial committee regarding alleged violence at Mahi-Mandvi hostel on

October 14, officials said.

JNU had on Tuesday requested the central agencies, including National Crime Record Bureau (NCRB) and CBI for help. "We have asked students and teachers to give any information regarding Najeeb," registrar Pramod Kumar said.

JNUSU said it will be meeting the Lieutenant Governor and President in connection with the case.

An FIR for kidnapping and wrongfully confining a person was lodged at Vasant Kunj North police station on Tuesday after the police received a complaint from the student's family.

October 19

Times Of India ND 19.10.2016 P-17

IIT directors oppose non-resident students

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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. Moreover, 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 outsource the job of hostel upkeep to outside agency. Idea is that the outside agency will pay fee to IITs and

HRD PROPOSAL

charge students at market rate. Money that IITs get from outside agency, 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.

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.

Hindustan Times ND 19.10.2016 P-6

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 Shrivastava

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NEWDELHI: Industries and power plants in and around Delhi are the biggest source of pollutants, SO₂ and NO_x, 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 (NO_x). 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 98% of the 142 tonnes of SO₂ and 60 per cent of the 312 tonnes of NO_x emitted in Delhi's air every day, comes from these sources. Breathing SO or NO_x 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, PM_{2.5}, that clog airways to lungs.

Apart from SO₂ and NO_x, these sources also directly contribute close to 19% of the PM_{2.5} 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 NO_x 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 NO_x, 1.4 tonnes of PM_{2.5} and 1.6 tonnes of PM₁₀ per day, the study says. "Many of these industrial units use low quality fuel, including furnace oil, illegally. This causes more pollution," said Bhure Lal, chairman of the Environment Pollution (Prevention and Control) Authority (EPCA). While the government has banned use of oil with over 500ppm sulphur content in the city, Lal said the government has not conducted any inspections to check if the industries are violating the fuel norms.

TANDOORS AND DG SETS

The DPCC records show there are about 9,000 hotels and restaurants in the city that use coal, mostly for tandoors. They contribute about 3.5 tonnes of PM₁₀, 1.8 tonnes of PM_{2.5} 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 20 tonnes of NO_x (6% of the total NO_x) 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. "Tandoors 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 sets. 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 NO_x gases, have been the most consistent sources of PM_{2.5} 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 NO_x levels in the NCR," said Nandikesh Sivalingam of Greenpeace India.

The IIT study recommended that de-SO_x-ing and de-NO_x-ing — processes of removing SO₂ and NO_x 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 PM_{2.5} 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.

Tribune ND 19.10.2016 P-13

IIT-Roorkee preparing plan for Dal preservation

TRIBUNE NEWS SERVICE

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



Shikaras on the Dal Lake

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 vio-

lators," 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.