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# फेसला... आईआईटी की तैयारी के लिए तीन नए चैनल शुरू करेगी सरकार

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नई दिल्ली. देशभर के लाखों छात्र आईआईटी की तैयारी में कई साल गुजार देते हैं। चुनिंदा ही सफल हो पाते हैं। इनकी राह आसान करने के लिए केंद्र सरकार जल्द तीन नए शैक्षणिक चैनल लॉन्च करने जा रही है। मानव संसाधन विकास मंत्रालय ने इस बाबत फैसला ले लिया है।

दरअसल, इसके तहत कुल 32 शैक्षणिक चैनलों की शुरुआत होगी। इनमें से तीन चैनल आईआईटी की प्रवेश परीक्षा की तैयारी कराने के लिए लॉन्च किए जाएंगे। चैनल बताएंगे कि जेईई-मेन और जेईई-एडवांस का पाठ्यक्रम क्या है, कैसे तैयारी करें, 12वों की पढ़ाई का पाठ्यक्रम कैसे मदद कर सकता है? मौजूदा छात्र और आईआईटी के प्रोफेसर की कक्षा का भी प्रसारण किया जाएगा। इन तमाम बिंदुओं पर कार्यक्रमों का प्रसारण होगा।

आईआईटी दिल्ली के विशेषज्ञ कार्यक्रम की सामग्री तैयार करेंगे। कैमिस्ट्री, फिजिक्स और मैथ्स को ध्यान में रखकर सामग्री तैयार होगी। सरकारी सूत्रों ने बताया कि चैनल की सामग्री को ऑतिम रूप दिया गया है। मानव संसाधन विकास मंत्री प्रकाश जावड़ेकर ने प्रमुख केबल ऑपरेटरों और डीटीएच सेवा प्रदाताओं के साथ बैठक की है ताकि इसका प्रसारण आगे बढा सकें।

### जेईई से होता है दाखिला

देशभर में 23 आईआईटी संस्थान हैं। इनमें जेईई-मेन और जेईई- एडवांस के जिस्ये दाखिला होता है। मेन परीक्षा पास करने वाले शीर्ष दो लाख छात्र ही एडवांस परीक्षा दे पाते हैं। एडवांस में सफल होने वाले छात्रों को आईआईटी की सीट मिलती हैं।



### भारतीय भाषाओं को बढावा

सरकार संस्कृत समेत अन्य भारतीय भाषाओं को इसमें बढ़ावा देगी। मानव संसाधन विकास मंत्रालय प्रकाश जावड़ेकर ने कहा इन भाषाओं को बढ़ावा दिए बिना देश का विकास संभव नहीं है। देशभर में संस्कृत पढ़ाने वाले स्कूलों की संख्या बढ़ रही है।

### Hindustan Times ND 19.08.2016 P-01

ACADEMIC STANDARDS

### At 15:1, IITs not quite the beacons of ideal student-teacher ratio

**Neelam Pandey** 

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NEW DELHI: The Indian Institutes of Technology hope to compete with the best in the world but a poor student-teacher ratio is thwarting their bid to up their global ranking.

With 35% of sanctioned faculty positions vacant, the IITs — the first choice for aspiring engineers in India — have an average student-teacher ratio of 15:1 against a 10:1 requirement.

The IIT council chaired by HRD minister Prakash Javadekar will take up the issue at a meeting on August 23. The ministry is considering several solutions, including absorbing PhD students as faculty

"PhD students finishing their courses can be identified and mentored to join as faculty. The council will take up the issue of their campus recruitment. Also, adjunct faculty from industry can be identified and invited to teach a semester or two," said a senior

#### ABSORBING PhD

STUDENTS AS PART OF FACULTY AND GETTING FOREIGN TEACHERS ARE AMONG SOLUTIONS

UNDER CONSIDERATION

ministry official.

Another option is getting foreign faculty. An ill-maintained student-faculty ratio is a major reason for the IITs performing poorly on global rankings. The California Institute of Technology (Caltech), which holds the top spot in the World University Rankings 2015, has a student-teacher ratio of 6.9, in comparison.

Only seven ITTs make the rankings. The top two are ITT-Bombay, which comes in the 351-400 section, and Delhi in the 401-500 section (there are no individual ranks)

### beyond the top 100). CONTINUED ON PAGE 6

IITs by 2020.

The ministry is also look ing at sanctioning new teach ing positions specifically at IITs with a poor ratio, ar official said.

There is fierce competition to get into the IITs which have 72,000 students at present. More than a million aspirants appeared for the JEE main exam this year

Defending the schools, IIT Roorkee director Pradipts Banerji said, "All IITs have to maintain a very high bar for permanent faculty Rather than taking in poor quality permanent faculty what we do have are high quality DST INSPIRE fel lows, DBT Ramanujan fel lows and our own institute funded post-doctoral fel lows who perform full-time academic duties but are not counted as faculty."

Admitting the poor stu dent-faculty ratio was a chal lenge, a former IIT director who did not wish to be iden tified, however, said, "This affects global ranking but no quality as such. It is easy to increase the number of stu dents but not to get quality faculty. And the IITs are hiring."

### IITs not quite the beacons of ideal studentteacher ratio

IIT-Bombay has a studentfaculty ratio of 14:1 while it is 16:1 for Delhi.

Even among the IITs, the older institutes have the poorest ratios — 22:1 in Varanasi (IIT-BHU) and 19:1 in Kharagpur — while some of the newer ones are close to the required ratio at 11:1.

Ministry sources said the ratio, if not corrected, will get more skewed as there are plans to add 30,000 offcampus students to the 18

### Economic Times ND 19.08.2016 P-08

### IIT-Roorkee Lowers the Bar to Pass B-Tech Course

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New Delhi: Pressured by what has now become an annual affair of termination of low performers and then revoking the termina-tion, Indian Institute of Technolo-gy-Roorkee, has decided to lower the bar for passing the B-Tech (Ba-chelor of Technology) course. Giving a hyffer to those students

Giving a buffer to those students who are not able to face the acade mic pressure, the institute has lowered the Cumulative Grade Po

wered the Cumulative Grade Po-int Average (GGPA) required to pass the course from 5 down to 4. "A rationalisation of CGPA was much-needed. As every year, we find it is difficult for at least 1 to 2 per cent of the first year batch (1000 students) to score a 5.0 CGPA, "IIT-Roorkee director Pra-dipta Banerjee told The Economic

Times over phone.
This year, IIT-Roorkee, had struck off 18 students from its rolls for low grades, the year beforethe figure was 73, but on both occasions it decided to withdraw the termination after protests. Till recently it was compulsory for IITtermination after protests. Till re-cently, it was compulsory for IIT-Roorkee students to get a CGPA of 5 or more in order to pass the course. Of the 18 students, except one, all belonged to the reserved cate-

gory. Employability of engineers has Employability of engineers has been a big concern in India. The scramble for best talent by compa-nies leads to the race for early bla-slots at the ITS. About 5-20 per cent of students graduating from the ITS fail to find suitable job of-fers, as reported earlier by ET. "ITT hans standout in the world as their minds are wired to perform against tough goals. Lowering go-

als for graduating touches that coals for graduating touches that co-re attitude of pursuit of the im-possible known in the IITs. We thus run the risk of producing or-dinary doers when we could have produced extraordinary innova-tors," said Vineet Nayar, former chief executive officer of HCL Technologies. Technologies.

The problem of low performers is not confined to IIT Roorkee alone. Almost all IITs have a number of low performers. For every 1000 students in the first year, at least students in the first year, at least one to two per cent is unable to cope with the academic pressure. According to statistics shared by Dr Mahendra Nath Pandey, minister of state, ministry of human resource development, while answering a question raised in Lok Sabha, between 2014 and 2016, the number of students who left the 16 ITTs in the country was 1,782.

Speaking in favour of lowering the CGPA, TV Mohandas Pai, cha-irman of Manipal Global Educa-tion said, "IITs should not instil the fear of failure in the young minds. Reducing CGPA is a good idea"

In the past, IIT-The institute Kanpur too faced has lowered the problem of a high number of Cumulative students failing to cope with the passing grades every year. This number used to pass the course fro down to 4

pass the number used to downto 4 every year. It was in 201 that ITT-Kanpur decided to lower the CGPA from 5.0 to 4.0 as the passing evitoriem.

criterion.
"We do have a few students every year who cannot cope with the

for all the IITs," said IIT-Kanpur's dean of Academic Affairs Neeraj Mis

Misra.
But others like IIT-Delhi and Guwahati maintain a minimum
CGPAof 5.0forpassing the course.
The number of low-performing
students in the first year at IIT-

Delhi has been more than 10 al-most every year. "There are a few tens of students who do drop out tens of students who do drop out as they are not able to cope with the pressure at the ITT." confirmed a faculty member at IITT-Dehi, IITD-Dehi gives six years to B-Tech students to get a degree, which should ideally be completed in four years. Many IIT faculty members blame the poor quality of students to the cramming up taught at the coaching centres, inability to comprehend English language and the objective type of question papers

for the IIT entrance examination

for the IIT entrance examination that is not an actual test for conceptual comprehension.

"The current assessment for entrance to the IIT's does not help in a complete assessment of students getting through the IITs. It is a little misleading," said Misra.

IIT-Guwahati director Gautam Biswas says the problem of a few students not able to cope with the pressure at IITs is nothing new.

pressure at IITs is nothing new. "This has been there for several

years," he said. IIT-Varanasi (BHU- Banaras IIT-Varanasi (BHU- Banaras Hindu University) director Raje-ev Sangal spells out the inability comprehend lectures in English and high competition among peer group as main factors for students not being able to cope at the IITs. He says, "Lowering CGPA is just not the answer to this problem."

### Hari Bhoomi ND 19.08.2016 P-06

# आईआईटी ने गोद लिए पांच गांव

गंगा को निर्मल बनाने के लिए लोगों को जागरूक करेगी आईआईटी

एजेंसी. कानपर

नमामि गंगे प्रोजेक्ट के तहत गंगा को स्वच्छ और निर्मल बनाने के लिये आईआईटी कानपुर ने गंगा नदी के किनारे बसे शहर के पांच गांवों को गोद लिया है।

आईआईटी केवल इन गांवों की सफाई व्यवस्था, स्वच्छ पानी की व्यवस्था और यहां का गंदा पानी गंगा नदी में न जायें इसके लिये गांव वालों को जागरूक करेंगी। कानपर के जिन पांच गांवों को आईआईटी ने गोद लिया है उनमें रमेल नगर, ख्योरा कटरी, प्रतापपुर, हरी हिंदपुर और कटरी लोधवा खेडा गांव शामिल है। यह सभी गांव कानपुर में गंगा नदी के किनारे बसे हैं। आईआईटी कानपुर के सिविल इंजीनियरिंग विभाग के प्रोफेसर और नमामि गंगे प्रोजेक्ट से जुड़े प्रो विनोद तारे ने बहस्पतिवार को बताया कि नमामि गंगे प्रोजेक्ट के



तहत गंगा नदी को स्वच्छ और निर्मल बनाए जाने के लिये गंगोत्री से गंगासागर तक बसे शहरों के सभी 13 शिक्षण संस्थानों (एजुकेशनल इंस्टीटयूशन) को पांच पांच गांव गोद लेने की बात कही गयी है। इसी के तहत आईआईटी कानपुर जो कि गंगा के किनारे बसा है उसने भी पांच गांव गोद लिये हैं। इन गांवों को आदर्श गांव बनाये जाने की योजना है। इसके तहत इन गांवों के पानी की जांच की जायेंगी और वहां लोगों को साफ पानी पीने के लिये मिले इसके लिये प्रयास किये जायेंगे। यहां की नालियों में गंदगी युक्त पानी नहीं

 रमेल नगर, ख्योरा कटरी. प्रतापपुर, हरी हिंदपुर और कटरी लोधवा खेडा गांव का संवरेगा भविष्य

बहेगा. बल्कि बारिश का पानी बहेगा। इसके लिये प्रयास किये जायेंगे। ऐसे शौचालय बनाये जायेंगे जिससे गंदगी बाहर न निकले।

गांव का गंदा पानी गंगा नदी में न जायें इसके लिये प्रयास किये जायेंगे। उन्होंने कहा कि इस योजना के तहत इन सभी पांच गांवों के सभी लोगों को इसमें जोड़ा जाएगा और उन्हें गंगा के बारे में जागरूक किया जाएगा। विशेषतौर पर गांव के यवक यवतियों को इस काम में लगाया जायेंगा। इन पांच गांवों के ग्राम प्रधानों और अन्य प्रमख व्यक्तियों के साथ बैठके की जा रही हैं। शीघ्र ही इस कार्ययोजना को लाग किया जाएगा।

### Nai Duniya ND 19.08.2016 P-11

🚺 प्रौद्योगिकी संस्थानों, अनुसंधान संगठनों और विश्वविद्यालयों से मांगे आवेदन

# अब बनेंगी स्मार्ट सड़कें, खुद हो जाएंगी दुर

#### नई दिल्ली। संजय सिंह

केंद्र सरकार अब स्मार्ट और इंटेलीजेंट सड़कें बनाएगी। इसके तहत सड़क निर्माण में पहले से तैयार (प्री-कास्ट) कंक्रीट पैनलों के इस्तेमाल के अलावा ऐसी सेल्फ हीलिंग रोड्स के निर्माण पर विचार किया जा रहा है जो अपनी सके।विकसितदेशों में इस दिशा में काम ट्ट-फूट को अपने आप दुरुस्त करने में शुरू हो चुका है। भारत में भी बिद्रमिन समर्थ हों। इस सिलसिले में अनुसंधान के बजाय अब कंक्रीट की सड़कें बनाने के लिए आईआईटी, एनआईटी जैसे प्रौद्योगिकी संस्थानों, वैज्ञानिक शोध संगठनों तथा विश्वविद्यालयों से को अपनाने के बजाय हमें इसके नए आवेदन मांगे गए हैं।

2035 की रिपोर्ट के आधार बांधा गया है। सरकार का मानना है कि सडक निर्माण के परंपरागत तौर-तरीकों और सामग्रियों पर जल्द से जल्द पुनर्विचार कर इनमें परिवर्तन के उपाय खोजने होंगे। ताकि लागत, समय और ऊर्जा की बचत तथा पर्यावरण संरक्षण हो की योजना बनाई गई है। लेकिन कंक्रीट पेवमेंट बिछाने की मौजूदा तकनीक तरीके खोजने चाहिए। एक बार सडक स्मार्ट और इंटेलीजेंट सड़कों का बन जाने के बाद उसका रखरखाव यह मंसूबा विशेषज्ञ समिति और विजन भी बड़ी समस्या है। हमें इसका भी



माकुल हल तलाशने की जरूरत है। इसके लिए सबसे पहले हमें खुद के अनुसंधान के जरिए भारत के अनुकूल तकनीकों का विकास करना होगा। ताकि इस सड़क निर्माण में विदेशी निर्भरता पूरी तरह समाप्त हो।

सड़क परिवहन एवं राजमार्ग मंत्रालय ने अनुसंधान संगठनों से सड़क

निर्माण से संबंधित विभिन्न तकनीकों पर काम करने को कहा है। इनमें इंटेलीजेंट रोडस और सेल्फ हीलिंग रोड्स के अलावा सड़कों के लिए ऐसे फॉग विजन सिस्टम का विकास शामिल है, जिससे कोहरे के दौरान भी सडक पर वाहन चलाना आसान हो। इसके लिए दिन में सौर ऊर्जा को शोषित करके रात में उत्सर्जित करने वाली मौजुदा डिवाइस के सस्ते संस्करण विकसित करने को कहा गया है। इसके अलावा अनुसंधान संगठन ऐसे कंक्रीट का विकास भी करेंगे जिसमें सीमेंट और पानी की जरूरत न हो। उनसे जीपीएस आधारित ऐसी ऑनलाइन तकनीक के विकास की उम्मीद भी की गई है जिसके जरिए सड़कों की सतह की गुणवत्ता का आकलन दूर बैठकर किया जा सके।

भारत में टनेल बोरिंग मशीनों का प्रयोग सीमित है। इसे बढ़ाने के लिए इनका उचित आकार सुझाने को कहा गया है ताकि इन्हें जमीन के भीतर ले जाना और वहां से निकालना आसान हो।

### **IIT-G** to get fastest supercomputer in NE

http://timesofindia.indiatimes.com/city/guwahati/IIT-G-to-get-fastest-supercomputer-in-NE/articleshow/53764531.cms

Guwahati: The Indian Institute of Technology, Guwahati, (IIT-G), has acquired one of the most powerful supercomputers in the country.

According to Gautam Biswas, director of IIT-G, the supercomputer will have the topmost specifications among supercomputers in the entire northeastern, eastern and southern regions, outside Bangalore.

Speaking to TOI he said, "We received the supercomputer about a month ago and installation is in the final phase. It will be opened for use once the human resource development minister inaugurates it."

Reportedly, a date hasn't been decided yet for the formal launch, but the supercomputer is expected to be inaugurated within this year.

The device has been developed as a joint venture between the Centre for Development of Advanced Computing (C-DAC), Pune, and IIT-G. A part of the Param series of supercomputers by C-DAC, it has been named jointly by the two organizations as Param Ishaan. Biswas said around Rs 10 crore was spent to build the supercomputer. Param Ishaan will have a speed of around 250 trillion floating point operations per second (tflops) and 300 TB storage.

Rajat Moona, director general of C-DAC told TOI, "Supercomputers are present in different educational institutions of the NE states, like Tezpur University, Assam Engineering College, various National Institutes of Technology (NITs). However, this will be first time that a supercomputer of such huge specifications will be deployed in the region."

The first supercomputer installation in the state, the C-DAC and AEC PARAM Supercomputing Facility, was at the Assam Engineering College at its Jalukbari campus. It became operational earlier this year.

Currently, Indian Institute of Science has the most powerful supercomputer in the country, SahasraT, with a computing speed of 901.5 teraflops.

### IBM sets up high-power computing facility at IIT Bombay

http://timesofindia.indiatimes.com/tech/tech-news/IBM-sets-up-high-power-computing-facility-at-IIT-Bombay/articleshow/53755636.cms

MUMBAI: Tech major IBM and IIT Bombay has announced the opening of the first OpenPOWER Research Facility (OPRF) at the institute to help drive further education, innovation and research with the country's National Knowledge Network.

The network aims to interconnect all institutions of higher learning and research with a high-speed data communication network, facilitating knowledge sharing and collaborative research and innovation.

Open POWER Foundation was born out of a collaboration by IBM, Nvidia and Mellanox, and supports open development on the POWER architecture.

OPRF has been established to provide the country's large research and development community with technical assistance and infrastructure to further indigenous research.

"Open collaboration is driving the next wave of innovation across the entire system stack, allowing clients and organizations to develop customized solutions to capitalize on today s emerging workloads," Monica Aggarwal, vice president, India Systems Development Lab (ISDL), IBM Systems told.

"The OPRF will enable Indian companies, universities and government organizations to build technologies indigenously using the high-performance POWER processor, helping to drive the national IT agenda of India," she added.

The OpenPOWER Foundation is a global, open development membership organization formed to facilitate and inspire collaborative innovation on the POWER architecture.

So far, it has 230 members across 24 countries, and is looking at aggressively expanding its network in top tier institutions in the country, Aggarwal said.

OpenPOWER members share expertise, investment and server- class intellectual property to develop solutions that serve the evolving needs of technology customers.

With the opening of OPRF, scientists, students, developers and enterprises who are a part of the National Knowledge Network initiative can tap into the latest and best available OpenPOWER-based infrastructure, IBM said here.

To begin with, PhD scholars, MTech and engineering students will tap into OPRF to develop new age applications and solutions around eGovernance, healthcare, education, agriculture and high-performance computing.

"OPRF at IIT Bombay supports an open technology ecosystem for high-performance computing and its applications.

OPRF gives opportunities to students, faculty, and researchers to gain familiarity with OpenPOWER system features, and make contributions to the OpenPOWER foundation in terms of power processor, GPU acceleration, network

adapters/switches and application codes," PSV Nataraj, Professor and Principal Investigator, IIT Bombay said. In terms of its objectives and activities, OPRF aligns well with the recently-launched National Supercomputing Mission of Government of India, he added.

### IIT Hyderabad bags Rs 30 cr Japanese multi-mode transportation project

http://indianexpress.com/article/education/iithyderabad-bags-rs-30-cr-japanese-multi-mode-transportation-project2984766/

The five-year project is aimed at reducing carbon footprint.

Indian Institute of Technology (IIT) Hyderabad has bagged a Rs 30 crore project from Japan in the area of multi-mode transportation as the institute pursues to further nurture its special relationship with that country. "It is a five-year project aimed at reducing carbon footprint. We have a unique relationship with Japan," IIT-H Director Prof U B Desai said.

Officials of the institute said it is a second SATREPS (Science and Technology Research Partnership for Sustainable Development) project on 'Smart Cities for Emerging Countries based on Sensing, Network, and Big Data Analysis of Multimodal Regional Transportation System'.

Terming the relationship as one of its kind in the history of academia, Prof Desai said, "Perhaps the other one which comes closer is the relationship that IIT-Kanpur had with the United States."

"IITH, which started functioning in August, 2008, has various programmes with Japan like research and development collaborations and friendship programmes, as well as on the infrastructure front," he said.

"About 25 to 30 faculty members from Japan come to IITH every year, and an equal number of IITH faculty go to that country annually. Practically, we have one Japanese visitor to IITH every week," Prof Desai said.

The R&D collaboration between IITH and Japan are in areas of sustainable development, smart cities, digital fabrication, energy and environment, nanotechnologies, design and manufacturing, among others. The institute has MoUs with more than a dozen Japanese universities, and about 40 IITH graduates are pursuing higher education in Japan, funded by means of scholarship and fellowship by universities there.

On August 30, Japan International Cooperation Agency (JICA) is organising a conference, CONNECT-IITH in Tokyo, exclusively for IITH to interact with Japanese industries. As a cultural collaboration, a coffee shop named 'Shiru Cafe' has been established by Japan at IITH. Run by Japanese students, faculty and students of IITH get free coffee here every day.

### UGC to set up national digital library

http://timesofindia.indiatimes.com/city/kolhapur/UGC-to-set-up-national-digital-library/articleshow/53766984.cms

Kolhapur: The University Grants Commission (UGC) will set up a National Digital Library (NDL) in an attempt to provide single window access to e-learning facility to post-graduate courses.

In a letter issued on August 16, UGC secretary Jaspal Sandhu has asked the students of the universities and colleges to register themselves on the NDL portal (https://ndl.iitkgp.ac.in).

"The ministry of human resources development under its National Mission on Education has entrusted IIT Kharagpur to host, coordinate and set-up National Digital Library towards building a national asset," the letter states.

It further states, "The objective of project is to integrate all the existing digitized and digital contents available with different institutions. More specifically, it is to provide a single-window access with e-learning facility to different groups of users ranging from primary to higher education."

The letter said that from single window of NDL, educational material, more than 40 types of learning resources, and 13 lakh items in more than 70 languages can be accessed. In order to making the most out of these resources, the UGC has asked the officials to advise students to register themselves on the NDL portal at https://ndl.iitkgp.ac.in/.

The Shivaji University, Kolhapur (SUK) officials the UGC move was a unique and fine approach to provide vast and varied content to the students. University officials already have access to various journals for higher education, but the digital library is altogether a different scenario, said the official.

### Reduction in forest area has led to deficit rainfall, says IISc study

http://www.deccanherald.com/content/565499/reduction-forest-area-has-led.html

The state has received deficit rainfall this season. This is not just because of global warming and el Nino effect, but also because of change in land use, especially reduction of forest cover.

A recent study by researchers from the Indian Institute of Science (IISc) titled "Time-Series Modis Normalised Difference Vegetation Index (NDVI) based vegetation change analysis with land surface temperature and rainfall in Western Ghats, India" shows that because of change in landscape of north, central and southern Western Ghats, there is a decline in rainfall trend, which is also having an adverse impact on the food and water security.

The study, conducted by Prof T V Ramachandra, Centre for Ecological Sciences, IISc along with Uttam Kumar and Anandita Dasgupta, showed that the dense forest areas in the northern, central and southern Western Ghats have decreased by 2.84%, 4.38% and 5.77% respectively and agricultural or grasslands have increased by 2.23%, 4.32% and 5.85%.

The rainfall time-series data also showed a decreasing trend in the rainfall pattern from 2013 towards 2020 in the northern, central and southern Western Ghats, revealing a grave situation threatening water and food security in peninsular India with an increasing trend of deforestation. Also, the number of rainy days had decreased in the southern Western Ghats region.

The trends in rainfall time-series data were analysed using statistical methods and modelled using auto-regressive integrated moving average (ARIMA) which indicated a decreasing trend in the rainfall pattern, Ramachandra said.

There is also a marginal increase in human settlement or soil area and small decrease in the spatial extent of water bodies in all the three regions. The study also revealed that the temperature in dense forests has always been less than in agricultural or grassland areas in all the three seasons.

"We focused on vegetation data to investigate the distribution of land surface temperature and rainfall because the existing vegetation distribution is largely controlled by temperature and precipitation pattern. Monthly climatic changes and trends of the last 10 years provided a clear illustration of the NDVI trends," he said.

Differences in NDVI—temperature and NDVI—precipitation correlations relative to vegetation types such as forest and agriculture or grassland were also investigated. This result supports and is of similar magnitude as temporal studies showing increase of NDVI corresponding to increase in growing season temperature over the length of the satellite record, Ramachandra added.

### August 18

Navodaya Times ND 18.08.2016 P-04

## बिजनेस वुमन तैयार करेगा आईआईटी दिल्ली

नई दिल्ली 17 अगस्त (ब्यूरो): आईआईटी ने महिलाओं के लिए मेंटॉरशिप प्रोग्राम की शुरुआत की है। इसके तहत किसी भी क्षेत्र से आने वाली 30 महिलाएं इस प्रोग्राम के जरिए आन्टप्रेनरशिप के क्षेत्र में प्रशिक्षित हो सकेंगी। इन 30 महिला उद्यमियों को इंस्टीट्यूट का फाउंडेशन फॉर इनोवेशन एंड टेक्नोलॉजी ट्रांसफर और वृमन आन्टप्रेनरशिप एंड एम्पावरमेंट फाउंडेशन प्रशिक्षित करेगा। इस बाबत आईआईटी दिल्ली के डायरेक्टर वी रामगोपाल राव ने कहा. सिर्फ 10 प्रतिशत स्टार्ट अप्स को महिलाएं चला रही हैं। हम इसे बदलना चाहते हैं। हम यह सनिश्चित करना चाहते हैं कि देश के उद्यमियों में आधी संख्या महिलाओं की हो। इसके लिए हमें महिला उद्यमियों की मदद करनी होगी।

Hindustan Times ND 18.08.2016 P-13

# Education channels to help IIT aspirants

NEW DELHI: DTH service providers and cable operators have agreed to carry the feed of 32 education channels called 'Swayam Prabha' to be launched soon by the HRD ministry. The channels will telecast programmes for IIT entrance, engineering courses and will help students prepare better for competitive examinations.

The decision, according to sources, was taken after a meeting held by HRD minister Prakash Javadekar on Wednesday with all cable and Direct to Home (DTH) operators.

The content of these channels has been finalised and the ministry is now working on ensuring that they reach every household. "The minister asked them (operators) to be a part of this educational revolution and assured support in technical matters," a senior official said.

### IIT-BBS inks pact with BHEL for energy research

http://www.newindianexpress.com/states/odisha/IIT-BBS-inks-pact-with-BHEL-for-energy-research/2016/08/18/article3585145.ece

BHUBANESWAR: The Indian Institute of Technology, Bhubaneswar (IIT-BBS) is stitching up a spate of collaborations for research and development (R&D) in emerging sectors of science.

On Wednesday, it signed an MoU with BHEL for R&D collaboration in energy sector. The MoU for long term R&D was signed by IIT-BBS Director Prof RV Raja Kumar and Dr Executive Director of BHEL Umakant Choudhury.

A dozen areas where IIT can collaborate with BHEL has been identified which includes carbon nanotubes to system-level study on grid interaction of multiple hybrid PV System.

Raja Kumar said the collaboration would enable IIT's faculty members to contribute for technology development in the areas of energy and power systems including renewable energy sources in which both the agencies have a lot of common interest and huge potential.

Earlier, the institute had collaborated with Integrated Test Range (ITR), DRDO, Chandipur by signing agreements for three sponsored research projects. The projects include 'Utilisation of ITR Doppler Weather Radar Products in High Resolution Mesoscale Model for Prediction of Severe Weather Over Chandipur' by Prof UC Mohanty, 'Real time Implementation of Image Fusion Algorithms for IR and CCD Video' by Dr NB Puhan and Prof G Panda of SES and 'Aeronautic Telemetry Channel Estimation and Equalisation' by Dr PR Sahu and Prof G Panda.

The research partnerships apart, the institute has sought to rope in visiting faculties and researchers from international institutions to create an academic atmosphere of cosmopolitan character and global flavour.

The visiting faculties can be hired for a semester which can be extended up to one more year. They can also participate in teaching as well as research programmes in its constituent schools.

The IIT-BBS is offering an honorarium of `1.5 lakh per month and other amenities to the international faculty members. They would also be eligible for an allowance up to `50,000.