# Newspaper Clips
## April 3-4, 2016

## April 4

**Hindu ND  04/04/2016     P-12**

# Centre ranks 3,500 campuses; list today

SAMARTH BANSAL

NEW DELHI: The Union Human Resource Development Ministry is set to release on Monday rankings of Indian educational institutions based on the National Institutional Ranking Framework (NIRF). Nearly 3,500 institutions took part in the exercise.

While the NIRF happens to be the first comprehensive framework to rank Indian institutions on the basis of a set of objective parameters, various other university ranking mechanisms have been in place.

The National Assessment and Accreditation Council (NAAC), an autonomous body under the University Grants Commission, assesses and assigns a score to Indian higher education institutions.

Based on the cumulative grade point average obtained after assessment, institutes are assigned 'A', 'B', 'C' or 'D' grade.

"The issue with the NAAC is that it is based on the evaluation of a team visiting the institute. Though the grading scheme is objective, the team has a reasonable control on the score. Even a 10 per cent variation in the score can have a major

> NIRF is the first comprehensive framework to assess Indian institutions

effect as many universities have similar scores," Dheeraj Sanghi, Dean of Academic Affairs and External Relations, Indian Institute of Information Technology, Delhi, told *The Hindu.*

**Transparent process**

In the past, institutes have questioned the credibility of international rankings as their data sources are not clear. The NIRF aims to make the process transparent.

Institutes were asked to submit their own data which was then verified by the National Bureau of Accreditation.

Under the NIRF, ranking parameters fall under five broad headings — teaching, learning and resources; research, consulting and collaborative performance; graduation outcomes; outreach and inclusivity; perception. The Ministry expects the ranking system to promote excellence in education in a competitive environment.

Times Of India ND 04/04/2016      P-11

# 1 million take JEE, teachers spot 'discrepancies' in exam

**TIMES NEWS NETWORK**

**New Delhi:** Over a million students took the paper-based Joint Entrance Examination (Main) on Sunday at over 2,000 centres. And like last year, teachers have spotted "discrepancies" in this year's paper too but without the CBSE's own answer key, there's no way to be sure.

"Question 84 (in Set F) has two answers and question 17 appears to have no matching answer in choices given. The mathematics section is a shade tougher than last year's with a few lengthy questions," says R L Trikha of FIITJEE. The CBSE's own answer-key isn't public yet. "It's hard to

**The top two lakh candidates will qualify to appear in the JEE (Advanced) to be held on May 23**

make any claims without the key," adds Keshav Aggarwal of Turning Point, "But there were some ambiguities in the chemistry part. Chemistry is usually easy but wasn't this year. Mathematics was relatively tough and physics, mediocre."

The exam is in parts. Paper I was similar in pattern to the ones that candidates have taken from 2011 to 2015. "The paper is balanced and is set from CBSE

syllabus of Class XI and XII," adds Trikha. The second paper was similar to last year's.

"In Physics, there were two questions which had more than one correct. Many students reported the section on mathematics to be lengthy. In chemistry, distribution of questions was quite skewed with more questions from organic chemistry. One question was found to be ambiguous in chemistry also," says Aakash Chaudhry of Aakash Educational Services. Aggarwal figures the "qualifying score" will "hover around 105-110 again."

The top two lakh candidates will qualify to appear in the JEE Advanced to be held on May 23.

# Tricky paper for IIT hopefuls
# - More students to qualify for next level

http://www.telegraphindia.com/1160404/jsp/bihar/story_78114.jsp#.VwH6Kfl9600

Indian Institute of Technology (IIT) aspirants said they found the entrance test paper tricky on Sunday but tried to stay hopeful because the number of students who will qualify for the Advanced level has been increased by 50,000 this year.

The much awaited examination of the year, IIT-JEE (Main) 2016, turned out to be lengthy for some aspirants while some found the calculations difficult.

The tense faces of the candidates after they walked out of the exam centre attested to the fact that they did not have an easy go at all the questions. The examination was held at 29 test centres in Patna, at 10 centres in Muzaffarpur and eight centres in Gaya. Around 60,000 students from Patna took the test.

Teachers predicted that the cut-off marks for this year will be higher than that of the previous year's 105 (for general category students), primarily because the top 2 lakh students who clear the test will go on to write the Advanced paper this year. Last year, 1.5 lakh students took the Advanced test.

Super 30 founder Anand Kumar, under whose guidance around 333 students have cleared the test since 2002, said: "The expected cut-off for general category students for the next stage (advanced) will be between 110 and 120."

He added that questions from the Class-XII syllabus were more compared to the Class-XII syllabus.

"The question paper was not balanced," he added.

Explaining his point, the Super 30 founder said there was only one question from trigonometry as compared to the three to four questions in the previous years. Similarly, there was only one question from complex numbers where there are generally about four questions.

"As both mathematics and physics questions were tricky and calculative if a student has attempted a lot of questions in chemistry, which was easier, they have a fair chance of clearing the test," said Anirudh Sinha, a teacher who runs an online coaching centre in Mumbai for JEE aspirants.

There were 90 questions carrying a total of 360 marks for Sunday's test.

"The paper was tough and tricky," said Aman Tejaswi, an IIT aspirant. "A student scoring more than 120 marks is sure to clear the test."

Admission to the 23 IITs across the country will be done on the basis of the Advanced test, which is scheduled on May 22. Admissions to the National Institutes of Technology and other government funded technical institutes will be done on the basis of the Main results.

Central Board of Secondary Education (CBSE), that conducted IIT JEE (Main) exams this year, employed

strict measures to check the use of unfair means inside the exam hall. Students were allowed to enter the exam centres at 7am for the test, which started at 9.30am. The board provided the necessary stationery to students too.

Students were barred from entering the exam centre with their own stationery, watches and wristbands.

"The board was very strict this time," said Vishal Kumar, an examinee who was spotted at Christ Church School (an exam centre). "It was like the All India Pre Medical Test (AIPMT) all over again."

Students wearing sacred threads were asked to remove them. Girls were asked to take off their earrings.

Around 12 lakh students appeared for the test this year, as compared to the 13 lakh students last year.

## IISc director promises to encourage women students in science

http://timesofindia.indiatimes.com/city/bengaluru/IISc-director-promises-to-encourage-women-students-in-science/articleshow/51663192.cms

BENGALURU: IISc Director Anurag Kumar, on Saturday made a promise that women researchers across the country would want him to keep.

He promised that he would put in measures to increase the number of women students and faculty at the 107-year-old institute. "We will even increase women in decision making positions," he said, speaking at an IISc conference celebrating women in science, engineering and research.

Quoting extensively from various reports on status of women in science, he said: "Girls do as well as boys if not better in science until higher education. And then, something happens." Conceding the low numbers at IISc, as TOI had reported on Saturday, Kumar said: "Institutes like the IISc and IITs, which are more elite are more skewed."

After the morning session, where Anurag spoke, senior physicist Rohini Godbole said: "I wish there comes a time when I am not termed a woman scientist and am called just a scientist, recognised by just my work." Many other researchers, who weren't as senior or bold as Rohini were of the opinion that Kumar, being the head of a premier institute would be setting a precedence for other institutes if he keeps his promise.

"Women researchers in other institutes can quote the example of IISc and fight for their rights. I hope, he keeps his promise and ensures by putting in place systems that ensure it survives even after this term," another researcher said.

Biocon CMD Kiran Mazumdar Shaw said: "This conference is a good starting point, but such one off

attempts will not work. Like professor Anurag just pointed out, there must be a continuous and conscious effort."

## Now, shock waves to treat infections?

http://timesofindia.indiatimes.com/city/bengaluru/Now-shock-waves-to-treat-infections/articleshow/51670826.cms

BENGALURU: Shock waves are seldom used in a sentence that conveys anything positive, but researchers from the Indian Institute of Science (IISc) have a good discovery. Shock waves can be used to treat biofilm infections like tooth decay and sinusitis, lung-infections, reactive arthritis, among other infections.

In one experiment -- using a hand-held device they developed to deliver shock waves -- researchers used these waves to disrupt a biofilm formed on a urinary catheter and in another, they used shock tubes to deliver waves to mice with lung infection. Subsequently, they were also treated with antibiotics.

With bacteria getting more and more resistant to antibiotics, research is underway across the globe to prevent such resistance and find novel ways of fighting them. "Biofilm- infections are life threatening with no solutions. Shockwave therapy will be an ultimate solution for difficult biofilm infections like sinusitis, lung-infections, reactive arthritis -- all crippling diseases," Dipshikha Chakravortty, Professor and Humboldt Fellow, Department of Microbiology and Cell Biology at IISc said.

She is one of the researchers in the team of eight from two departments in the IISc -- the Department of Aerospace Engineering and the Department of Microbiology and Cell Biology. Their paper, already published in Nature, points out the need to deal with biofilms on a priority (see box).

In the experiment with mice, the animals were infected with P. aeruginosa (a common bacteria). Then they were treated in three ways -- only an antibiotic (ciprofloxacin); only with shock waves and with a combination of shock wave and ciprofloxacin -- for three days.

"Within three days the researchers found that the bacterial population in the biofilm had significantly reduced in the shock wave treated mice compared to a control group that had received only the antibiotic treatment."

"Breaking of biofilm with shock wave and exposing to antibiotic will reduce the antibiotic requirement and will help in combating antibiotic resistance," Dipshikha said.

Pointing out the importance of the research, the researchers point out that that the US Centers for Disease Control and Prevention and National Institutes of Health have estimated that between 65-80% of infections are caused from biofilms.

"Bacteria contained within biofilms show resistance to antibiotics that is non-intrinsic. Many pathogenic bacteria can form biofilms in or on tissues; these in situ biofilms cause inflammation and tissue damage," the paper points out, while research say that the shock wave therapy has a huge potential in treating people with such infections.

## India yet to have globally accepted patents: Vinod Rai

http://www.thehindu.com/news/cities/kozhikode/india-yet-to-have-globally-accepted-patents-vinod-rai/article8428474.ece

*625 students graduate from Indian Institute of Management-Kozhikode*

Vinod Rai, Chairman of Bank Boards Bureau and former CAG of India, on Saturday said the country was yet to have globally accepted patents to showcase our industrial or manufacturing capabilities.

He was delivering the convocation address at the 18th convocation ceremony of the Indian Institute of Management-Kozhikode."The Indian economy was displaying excellent signs of growth, buoyancy and remarkable resilience. But despite the attempts to achieve double digit growth in GDP, we are still sliding back to six per cent. It is not enough to be a country having the fourth largest number of billionaires in the world. We hardly have any globally accepted patents to showcase our industrial or manufacturing muscle," he said.

He urged the students to practise ethical management and leadership. He said the students should become the agents of change to build a robust economy with a good framework for corporate governance and excellence.

The grand ceremony organised on the IIM-K campus saw 625 students receiving their graduation certificates. As many as 358 students were awarded Postgraduate Diploma in Management. In addition, 97 students from the first batch of Executive Post Graduate Programme (EPGP) from IIM-K's Satellite Campus in Kochi, 167 students from EPGP Kozhikode campus and three students of the Fellow Programme in Management (FPM) were also awarded diplomas and fellow titles respectively.

**IIMK LIVE**

IIM-K Director in-charge Kulbhushan Balooni announced the approval of the Department of Science and Technology of the Union government to set up a Technology Business Incubator with a grant of Rs.3 crore. It will be registered as IIMK LIVE – Laboratory for Innovation, Venturing and Entrepreneurship.

He emphasised the need for a healthy alumni support to boost the institute's research activities and launched Kasebook, the state-of-the-art alumni website of the institute. Chairman of Board of Governors of IIMK A.C. Muthiah and other faculty members were present.

**Times Of India ND 04/04/2016        P-10**

# JNU, Hyderabad univ among top 10 varsities: Survey

TIMES NEWS NETWORK

**New Delhi:** Jawaharlal Nehru University (JNU) and University of Hyderabad (UoH) making it to the top 10 in the first-ever scientific ranking of Indian institutions assumes importance considering that one of the key parameters used was 'perception'.

For the first time, public perception about institutions was invited through an online tool. A total of 1.5 lakh votes were received from nearly 60,000 individuals. To add to it, eminent peer groups were selected from a list of notable and accomplished individuals from academia, industry, R&D institutions and other government organisations.

Sources, however, said most of the votes were received before problems began at JNU and HCU. "These two universities have a robust academic record and have contributed immensely to social science as well as science research. One incident cannot take away the legacy of excellence," said a National Board of Accreditation (NBA) official involved with the ranking exercise.

The ranking will be unveiled on Monday.

In total, 1,438 engineering colleges, 609 management in-

## PUBLIC PERCEPTION

stitutions, 454 pharmacy colleges and 233 universities participated in the exercise, making it one of the biggest ranking exercises ever. Architecture institutions were not ranked because of limited response. General degree colleges were also left out.

The entire exercise involved NBA, All India Council for Technical Education, UGC, Thomson Reuters, Elsevier and INFLIBNET (Information & Library Network) centre.

# Advancing research, innovation, ranking

Is India finally on the path of becoming the most preferred knowledge economy in the world?

**RATNESH KUMAR JHA**

The recent Union Budget, by and large, can be termed as the one that will enable India to continue on the growth journey and become the preferred knowledge economy of the world.

The growth of the Indian economy accelerated to 7.6% in 2015-16. This is clearly a reflection of a robust and transformational planning by the government. The fact that the Indian economy has continued to grow in the past few years, despite a number of challenges, strengthens the confidence of global economies and the IMF in the country, and positions India as the number one major destination from an investment perspective.

The finance minister's focus on ensuring macro stability and prudent fiscal management, along with boosting domestic demand, is in the right direction. What we need is implementation of measures towards meeting these targets.

There is considerable emphasis on education, and the lifting of ranking of Indian institutions is a welcome move. The importance given to skill development in the Budget and the steps that will be taken to increase the employability of the masses are also much-needed initiatives. The public-private partnership model can play a key role towards its success. In addition, apart from opening new colleges, we need a structured plan for building teacher capacity. Measures listed towards enhanced job creation will have the right impact through effective implementation and it would be interesting to see the governance structure around these.

To help the country grow as a knowledge economy, the announcement of the Higher Education Financing Agency (HEFA) is a promising step. However, it remains to be seen how the funding allocated will be diverted towards research and innovation where public-private partnership is not only important but also would play a key role to catalyse the growth of Indian institutions. Over the years, the global ranking of Indian research and academic institutions must rise.

India is recognised for talent and skilled workforce by industry globally, and is on the path of becoming the most preferred knowledge economy in the world. The good thing is that the Union Budget FY17 has a clear focus on advancing research, innovation, ranking and skill development in the country.

In a world perpetually short of good resources, what we need is capacity building, investment in research and innovation, focus on resource development and best utilisation of available resources.

*The author is MD, South Asia, Cambridge University Press*

# April 3

Hindustan Times ND 03/04/2016    P-5

# IIT-JEE today, 12 lakh to take test

**HT Correspondent**

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**NEW DELHI:** The first level of the Joint Entrance Examination (JEE) for admission to the Indian Institutes of Technology (IITs) and other engineering colleges in the country will be conducted on Sunday.

Sunday's test will be a pen-and-paper test with the online test being scheduled to take

**SUNDAY'S TEST WILL BE PEN-AND-PAPER. THE ONLINE TEST WILL TAKE PLACE ON APRIL 8 AND 9**

place on April 8 and 9.

JEE (Main) will be conducted by the Central Board of Secondary Education at different centres located in 129 cities throughout the country and

abroad. More than 12.07 lakh aspiring engineers are likely to sit for the prestigious exam this year.

The three-hour long test will have questions from Physics, Chemistry and Mathematics .

Based on the performance in JEE (Main), the top 1.5 lakh aspirants are selected to take the JEE (Advanced) for admission to the Indian Institutes of Technologies (IITs).

Indian Express ND 03/04/2016    P-7

# HRD advises IITs to start Sanskrit courses

## Govt move based on recommendations of an expert panel set up to prepare roadmap for promoting the language

**RITIKA CHOPRA**
NEW DELHI, APRIL 2

THE HRD Ministry has despatched an advisory to all Indian Institutes of Technology (IITs) to consider the idea of offering the ancient language as an elective course to their students.

Sources said, the advisory, which was sent Thursday, also requests the IITs to create posts and appoint teachers for the above purpose with the approval of their respective Board of Governors. The letter carries a link to the soft copy of a report submitted by an expert panel, headed by former Chief Election Commissioner N Gopalaswami, in February.

The committee, which had economist and NITI Aayog member Bibek Debroy, PM Narendra Modi's yoga guru H R Nagendra and UGC chairman Ved Prakash as members, was entrusted with the job of recommending a 10-year roadmap for promotion of Sanskrit. It had suggested the setting up of Sanskrit cells in all IITs, NITs, IISERs and central universities "in order to facilitate the student of science and technology in Sanskrit literature and inter-disciplinary study of various modern subjects and its corresponding subjects in Sanskrit literature".

"Atharavaveda, Vaisheshika Darshana etc. are, it is acknowledged, the treasure house of scientific concepts which are hitherto studied from Science point of view. There are hundreds of works like Siddhanta Shiromani, Vriksha Ayurveda, Upavana Vinoda, Mayamatam, etc. to name a few, which are of great relevance in the context of research and innovation. The proposed cell should also offer various types of Sanskrit Courses for the students in the campus for credits," the report states.

The HRD Ministry's advisory, however, isn't the first of its kind. In July 2000, under NDA-I, it had issued notices to around 40 institutions, including the IITs and IISC, asking them to consider introducing Sanskrit courses. Several IITs have since then integrated the knowledge available in ancient Indian texts in the mainstream engineering curriculum.

IIT Bombay director Devang Khakhar told *The Sunday Express* that his institute currently has a 'Cell for Indian Science and Technology in Sanskrit' which aims to bring the science-related materials (in Sanskrit) to the fore.

IIT Gandhinagar, on the other hand, offers a course on 'Introduction to Sanskrit language and literature' which covers literary genres, such as kavya, nataka, Purana and Niti and basic information about scientific and technical literature in Sanskrit.

IIT Madras director Bhaskar Ramamurthi said, "We currently don't offer a Sanskrit course, but once we receive the ministry's communication, we'll forward it to the humanities department to assess the demand for learning of Sanskrit among students. If there is a need, we can definitely start a course. We already have one on Chinese languages."

Aaj Samaj ND 03/04/2016 P-7

## एनआईटी में प्रवेश प्रक्रिया में बदलाव करेगी केंद्र सरकार

# IIT की तर्ज पर NIT में होगा प्रवेश

- 2017 से एनआईटी में प्रवेश के लिए ऑल इंडिया रैंकिंग में नहीं जुड़ेंगे 12वीं के अंक
- केंद्रीय मंत्री स्मृति ईरानी के नेतृत्व वाली एनआईटी काउंसिल ने लिया फैसला

नई दिल्ली। केंद्र सरकार देश के 31 नेशनल इंस्टिट्यूट ऑफ टेक्नोलॉजी (एनआईटी) में प्रवेश प्रक्रिया में बदलाव करने जा रही है। तीन साल पहले यूपीए सरकार द्वारा बनाई गई

प्रवेश प्रक्रिया की बजाए अब आईआईटी की तर्ज पर एडमिशन होंगे। वर्ष 2017 से एनआईटी में एडमिशन के लिए ऑल इंडिया रैंकिंग में कक्षा 12वीं के अंक नहीं जुड़ेंगे। इस बारे में जल्द ही अधिसूचना जारी होगी। अब तक यह होता है एनआईटी में एडमिशन के लिए विद्यार्थी को पहले जेईई (मैस) परीक्षा पास करनी होती है। उसके बाद 60 फीसदी जेईई के प्रदर्शन और 40 फीसदी 12वीं कक्षा में प्रदर्शन के

आधार पर ऑल इंडिया रैंकिंग तैयार की जाती थी। इस रैंकिंग के हिसाब से इन संस्थानों में प्रवेश मिलता था। 2017 से यह होगा मानव संसाधन विकास मंत्री ईरानी के नेतृत्व वाली एनआईटी काउंसिल ने फैसला किया है कि साल 2017 से 12वीं बोर्ड में प्रदर्शन को रैंकिंग में शामिल नहीं किया जाएगा। आईआईटी के लिए जेईई (एडवांस) पास करने के साथ पिछले वर्ष अक्टूबर में जब एनआईटी काउंसिल की बैठक हुई थी तब मंत्री ईरानी ने जेईई (मैस) 2016 में इसे लागू करने पर सहमति नहीं जताई थी और निर्णय को अगले साल के लिए टाल दिया था। माना जा रहा है कि वे अब समिति के सुझावों पर सहमत हो गई हैं और निर्णय को 2017 से लागू कर दिया जाएगा।

## 'कोचिंग पर निर्भरता कम करने पर दिया गया था जोर'

मोदी सरकार ने इस संबंध में वर्ष 2015 में एक विशेषज्ञ समिति गठित की थी। समिति ने पाया कि यूपीए सरकार के दूसरे कार्यकाल में लिए गए इस निर्णय का उद्देश्य पूरा नहीं हो रहा है। तत्कालीन मानव संसाधन विकास मंत्री कपिल सिब्बल ने तब यह व्यवस्था कोचिंग क्लास के प्रभाव को कम करने के लिए लागू की थी। यही नहीं, तब सिब्बल ने कहा था कि 12वीं बोर्ड के अंक इसमें शामिल किए जाने से बच्चे स्कूली शिक्षा पर भी जोर देंगे और कोचिंग पर निर्भर न होकर पढ़ाई करेंगे।

Hindustan Times ND 03/04/2016    P-1

# Govt survey finds Hyderabad varsity, JNU best in India

**Neelam Pandey**
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**NEW DELHI:** Two universities now at the centre of a raging debate over nationalism and free speech are India's best, a first-ever government-backed survey has found, using parameters ranging from research facilities to employability of their graduates.

New Delhi-based Jawaharlal Nehru University (JNU) and University of Hyderabad have been on the boil since January with rival students groups sparring over differing political ideologies, but that seems to have had little impact on their academic excellence.

The survey results assume significance considering that students of the two campuses have been at loggerheads with the government over free speech and anti-caste campaigns.

The rankings, to be released

## THE HONOUR ROLL
**The rankings will be released by government on Monday**

■ JNU, University of Hyderabad and DU among India's top varsities, say sources

■ Jamia Millia Islamia figures further down the order

■ Ranking parameters include teaching, research and learning facilities, employability of graduates, social and gender inclusivity

**3,500+** higher educational institutions included in survey

■ At the centre of a nationalism debate, JNU among the top.

by human resource development minister Smriti Irani on Monday, are set to show that the two universities are the best in India, although on the overall list they come after two scientific institutes that are not designated as universities.

More than 3,500 higher educational institutions were considered in the survey. The other categories of institutes that have been ranked include engineering, management and pharmacy. No ranking was considered for colleges since the response was poor.

## Govt survey finds Hyderabad varsity, JNU best in India

Among the universities, the Delhi University figures among the top 10 but behind JNU and Hyderabad university. The Jamia Millia Islamia university ranks further down the order.

The criteria used to rank the institutions included teaching/ learning resources, research, graduation outcomes (employability), outreach/ social and gender inclusivity and perception.

An independent agency, the National Bureau of Accreditation, validated the data submitted by the institutes, government sources said.

**THE NATIONAL BUREAU OF ACCREDITATION, VALIDATED THE DATA SUBMITTED BY THE INSTITUTES, GOVT SOURCES SAID**

The data for the first four parameters, which account for 90% of the weightage, was submitted by the institutions and verified by National Institutional Ranking Framework (NIRF), a body constituted by the HRD ministry last year to conduct annual quality surveys.

For the perception criterion, feedback was taken from various stakeholders, including parents, teachers and alumni.

While protests swept JNU after its students' union leader Kanhaiya Kumar was arrested on charges of sedition for allegedly attending an anti-India event, the university in Hyderabad saw trouble over the suicide of Rohith Vemula, a Dalit PhD scholar who alleged on-campus social discrimination.

Irani's ministry came under fire for Vemula's death, with the opposition accusing it of discriminating against the student and abetting his suicide.

# MoU signed to promote research with IMPRINT prog

http://timesofindia.indiatimes.com/city/kanpur/MoU-signed-to-promote-research-with-IMPRINT-prog/articleshow/51668691.cms

Kanpur: To promote research in premier technical institutions through Impacting Research Innovation and Technology (IMPRINT) programme, an memorandum of understanding (MoU) was signed among 25 different ministries/departments of Government of India, including ministry for human resource development.

Director, IIT-Kanpur Prof Indranil Manna informed that the MoU was signed at a function in New Delhi on Friday which was presided over by Union HRD minister. Speaking on the occasion, the union minister said that earlier the research work had to be done in piecemeal and there was no sustainability in technology related work as it was totally dependent on funds released by HRD ministry, Prof Manna informed.

The minister was quoted as saying that it was for the first time in the history of India that all IITs have come together as a family and have undertaken this unique initiative of IMPRINT wherein they have taken upon themselves to carry out technological innovations at doorsteps of the common man and also use it for the welfare of mankind.

While HRD ministry would be responsible for laying down the policy for implementation and coordination with other departments, other ministries and departments would be responsible for resolving difficulties in implementation and meeting 50% of the project cost, defining requirements of research for inclusion in the IMPRINT programme, participating in the apex committee meetings for selection of the projects and to review the progress of the projects from time to time, said Prof Manna.

He further said, "IMPRINT, is a flagship national initiative of the government which was launched on November 5, 2014. It is a multi-disciplinary, multi-partner and multi-goal oriented national programme aimed at technology development, covering all engineering disciplines steered by all IITs and IIScs". The programme also aims at synergizing with all major initiatives of the Government of India like 'Make in India', 'Digital India' , 'Skill India', 'Namami Gange', 'Unnat Bharat Abhiyan', 'Swachch Bharat Mission' etc, he added.

For implementation of IMPRINT programme, it was decided at a meeting held on December 14, 2015 to sign a formal MoU among all participating ministries/departments for achieving coordination for effective implementation of development programme of Government of India, the IIT-K director stated.

# Soon, 6-yr Integrated MSc at IITs

http://www.newindianexpress.com/cities/chennai/Soon-6-yr-Integrated-MSc-at-IITs/2016/04/03/article3360657.ece

CHENNAI: The IIT Council, the governing body of all the Indian Institutes of Technology, is planning to introduce six-year integrated MSc, M Tech programmes at select institutes soon. If this is indeed taken up, it would be the first ever such initiative in its history, said sources.
During its last meeting held in October 2015, the IIT Council gave it final nod to the proposal.

While a few IITs were looking at modifying the course structure further, a few others intend to offer this integrated post graduation course in select engineering streams soon.

The new course would be similar to the five-year integrated BTech MTech programmes already available at most of the IITs across the country.

According to sources in the Education Ministry, IIT Kharagpur was the forerunner in this, obtaining the approval from its Senate and Board during the recent meetings for implementing this six-year course in Petroleum Engineering from the forthcoming academic year . It intends to expand it soon to other departments in the college.

But IITs like the ones at Bhubaneswar and Indore have asked their respective senates to take the call after further deliberations, and are likely to go in for further modifications.

In a reply to the council regarding action taken in this regard, IIT Ropar and Gandhinagar have said that they had 'noted down' the decision, implying that the implementation was kept pending.

"More details regarding the course structure, fees and eligibility would be discussed during subsequent IIT Council meetings. But in general, in case of integrated courses, both the degrees would be provided to successful candidates on completion together," said a senior All India Council for Technical Education (AICTE) official.

IIT Madras director Bhaskar Ramamurthi said this six-year course would not happen this year.

The decision comes in the backdrop of the apex regulator body, the University Grants Commission, asking the IITs last August to change the course duration of dual five-year programmes (BTech, M Tech and BS MS) to six years, according to a 2014 Gazette Notification on nomenclature and duration of 129 recognised degrees in 700-odd degree granting institutions.
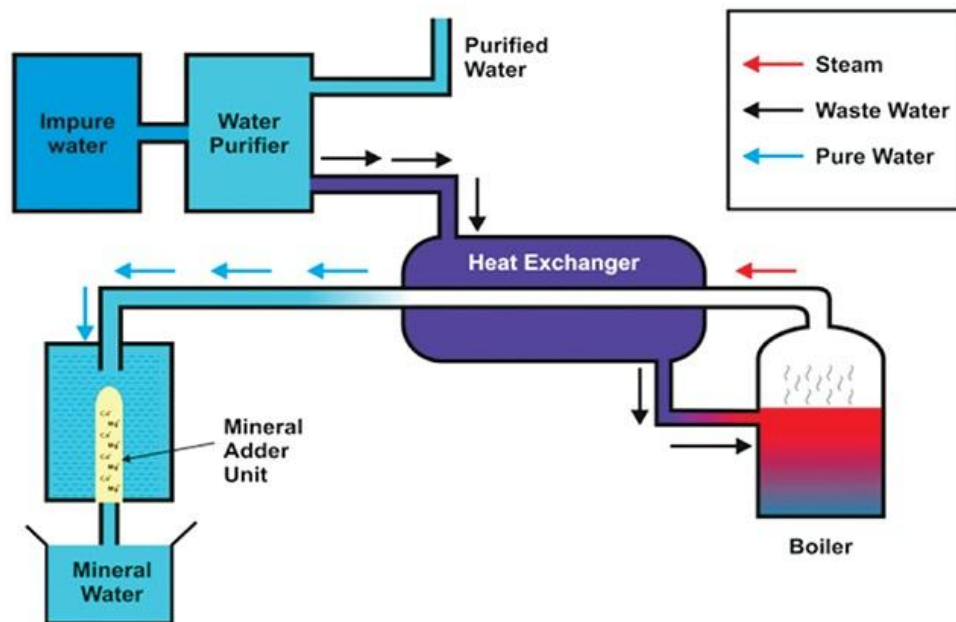
The IIT had opposed this stating that they were not governed by the University Grants Commission Act of 1956, but by the IIT Act, 1961, which doesn't restrict the duration of integrated courses.

However, the ministry backed commission and the row between the IIT and the UGC was reportedly taken to the Law Ministry.

# KCG Team Recovers 85% RO Waste Water

http://www.newindianexpress.com/cities/chennai/KCG-Team-Recovers-85-RO-Waste-Water/2016/04/04/article3361536.ece

CHENNAI: A group of students from KCG College of Engineering has found a way to make RO reject (unusable) water consumable. This is significant because for every litre of RO (reverse osmosis) purified water, over 4 litres are wasted. Even modern RO water purifiers have an efficiency of only 40%.

The hardness and alkalinity of the reject water is beyond consumption levels and it is not suitable for usage, even for washing. The technology developed by the students can be integrated with RO water purifiers and recover 85% of waste water.



Final year students A Vinayak Kailash, S Renish Samuel, N Vignesh and the second year student Bala Surya said, "The volume of water wasted is more than that obtained in the RO process. For every 10 litres of water rendered to the purifier system, less than 3-4 litres is made fit for consumption. The remaining waste water contains high amounts of mineral salts. The level of total hardness and alkalinity is generally beyond 500 mg per litre, but the value should be less than 200 mg per litre for it to be consumable. We designed a unit using a heat exchanger-cum-condenser and boiler unit to reduce this wastage."

The waste water from the purifier is passed through the heat exchanger unit and then to the boiler unit, where the water is converted into steam leaving behind all impurities. Water condensation takes place in the heat exchanger and this water is pumped into a water mineral unit, where minerals are added. It is then fed back to the input of the water purifier system for usual purification.

The students' guide and assistant professor M Manoj, said, "We have given the samples to Chennai Metro Water for testing and the results are awaited. The Greenvironment water quality testing lab at IIT-Madras established that our technology is effective. We reduced the alkalinity in a borewell water sample from 112.5 mg per litre to 12.5 mg per litre, and the hardness from 300 mg per litre to 20 mg per litre. The value of total dissolved salts (TDS) in parts per million was reduced from 1,600 to 28." One of the students, Vinayak Kailash, said the technology has immense commercial value and they are planning to patent it. "We just developed a rough prototype using local vessels for our project. If developed it as a product, we can further increase the efficiency," he said.

**Here is How it Works**

Filtering Impurities: The waste water from the purifier is passed through the heat exchanger unit and then to the boiler unit, where the water is converted into steam leaving behind all impurities

Back to Usual Process: Water condensation takes place in the heat exchanger and this water is pumped into a water mineral unit, where minerals are added. It is then fed back to the input of the water purifier system for usual purification.

# Free access to e-content offered by foreign faculty soon

http://timesofindia.indiatimes.com/city/madurai/Free-access-to-e-content-offered-by-foreign-faculty-soon/articleshow/51667036.cms

Madurai: Vice-chairman of University Grants Commission (UGC), H Devaraj on Saturday said that 1,000 foreign faculty would be offering programmes for various universities across the country under the Global initiative of academic networks (GIAN) of the ministry of human resource development (MHRD). Those programmes will be videographed and put up on 'Swayam' (Study Webs of Active-learning for Young Aspiring Minds), an upcoming portal of the MHRD.

"Prime Minister Narendra Modi will inaugurate the Swayam web portal in July and one could freely access the e-contents that would be uploaded in it," Devaraj said.

Many IITs, IIMs and some central universities have been engaging foreign faculty for some time now. The MHRD has now planned to enable state-run universities to avail the expertise of foreign faculty under GIAN.

"GIAN has been designed with various objectives including that of providing an opportunity to students seeking knowledge and experience from reputed international faculty. At present, many universities are weak in filling up their vacancies. Due to that, students should not get affected. The foreign faculty's e-contents will be helpful to students," he said.

A foreign faculty will offer course for one or two credits under the choice-based credit system. For one credit, $ 4,000 and for two credits $ 8,000 will be given.

From Tamil Nadu, few universities including the University of Madras and Madurai Kamaraj University attended a meeting that was held to discuss GIAN's foreign faculty programme. Interested universities should submit their proposals to the UGC which is a nodal agency, stating the courses for which foreign faculty's programmes are required, Devraj said.