

Newspaper Clips September 18, 2014

HT.Com ND 18.09.2014 P-6

Now eligibility for IITs, 75% marks in 12th board exams



■ The final decision will be taken in the meeting of IIT council later this month FILE

Brajesh Kumar

The percentile system that decides students' eligibility for admissions into the IITs is set to change with the Joint Admission Board (JAB) of the premier technical institutions recommending 'top 20 percentile or 75% marks in the state board examinations, whichever is lower,' for a seat in the IITs.

The recommendations came in a meeting of Standing Committee of IIT Council, a sub committee of the IIT council on Saturday, sources in the government said. The final decision will be taken in the meeting of IIT council, later this month. The top 20 percentile system introduced during the UPA

regime and under former Human Resources Development minister Kapil Sibal in 2013, required successful candidates to be among the top-20 percentile scorers in Class 12 exams of their respective boards.

This rule had sparked a controversy as there was huge variation in the cut off marks of different boards and had resulted in 80 students mostly from Andhra Pradesh missing a seat in IITs despite qualifying the entrance examination, as they had failed to figure in the top 20 percentile.

The cut-off (to figure in top-20 percentile list) for Andhra students had shot up to 91.8%, the highest in the country, Tamil Nadu, at 90.9% and Kerala 85.2 per cent.

The modified rule, when accepted by

the IIT council, will benefit students who score 75% marks in the board examination as they will qualify the eligibility criteria of the IIT irrespective of the variations in the percentile cut off.

The new system was introduced in 2013 to make students give more focus on their class 12 board examinations, which was widely ignored by IIT aspirants who, according to the earlier rule just had to score 60%.

The 20 percentile system, after it was introduced saw rise in cut off from 81.6% in 2013 to 83.2%. For Andhra Board this increased from 91.8% to 93.03%, for Karnataka board from 86% to 93%, for ISC from 83.2% to 85%, Tamil Nadu board from 90.9% to 91.7%.

Nayi Duniya ND 18/9/2014 P-7

कोई भी पढ़ सकेगा आईआईटी-आईआईएम में

ग्वालियर (ब्यूरो, मप्र)। देश के 16 आईआईटी और 13 आईआईएम सहित 43 केंद्रीय विश्वविद्यालयों में अब हर किसी को पढ़ाई करने का मौका मिल सकेगा। यह पूरी तरह से ऑनलाइन होगी और मुफ्त भी। इन संस्थानों में पढ़ाई मॉड्यूल के जरिए कराई जाएगी, जिसमें कोई भी व्यक्ति अपनी पसंद व जरूरत के हिसाब से एडमिशन ले सकेगा।

लोगों को इन बड़े संस्थानों में पढ़ाई कराने को लेकर मानव संसाधन विकास मंत्रालय द्वारा बनाई गई 'स्टडी वेब्स ऑफ एबिटिंग लर्निंग फोर एस्पायरिंग माइंड' योजना 2014 के अंत तक शुरू कर दी जाएगी। पहले चरण में लोग इंजीनियरिंग, समाज विज्ञान, ऊर्जा, प्रबंधन तथा मूल विज्ञान के सर्टिफिकेट कोर्स कर सकेंगे। बाद में अन्य कोर्स संचालित कर दिए जाएंगे।

विशेषज्ञ तैयार करेंगे कोर्स

इस योजना के तहत पहले चरण के कोर्स आईआईटी मुंबई, आईआईटी कानपुर, दिल्ली विवि, जेएनयू, आईआईएम बंगलुरु, कोलकाता व बनारस हिंदी विवि के प्रोफेसर ऑनलाइन कोर्स तैयार करेंगे।

यह कॉन्सेप्ट इसलिए खास

- » आईआईटी व आईआईएम संस्थानों से सर्टिफिकेट कोर्स के लिए देनी पड़ती थी लगभग 25 से 1 लाख रुपए तक फीस।
- » अब कोई भी सर्टिफिकेट कोर्स निःशुल्क कर सकेगा।
- » कोर्स का सर्टिफिकेट जारी करने के लिए लिया जाएगा सिर्फ मामूली शुल्क, एज लिमिट का इंडेंट नहीं।
- » कोर्स के माध्यम से स्टूडेंट्स नौकरी पेशा भी सुधार सकेंगे अपना कौशल।



ऐसे होगी पढ़ाई

आईआईटी, आईआईएम सहित केंद्रीय विश्वविद्यालयों की वेबसाइटों पर इस योजना की एक लिंक होगी। जिसमें कार्यक्रमों का ब्यौरा होगा। प्रत्येक कोर्स की ऑनलाइन लर्निंग लिए लगभग 40 घंटे होंगे। जिसमें संस्थानों के प्रोफेसरों के लेक्चर लिखित व वीडियो के रूप में होंगे। जिसमें दिए गए ईमेल के तहत स्टूडेंट्स प्रोफेसरों से क्वेश्चंस कर सकेंगे।

विदेशी संस्थानों में यही पैटर्न

- » जॉस हॉपकिंग और हार्वर्ड जैसे विदेशी विश्वविद्यालयों में इस तरह का कॉन्सेप्ट चलता है। जिसमें लोग डिग्रियों के अलावा सर्टिफिकेट कोर्स का लाभ लेते हैं। जो नॉन क्रेडिट हैं।

इंजीनियर्स को फायदा

- » शहर में संचालित 24 इंजीनियरिंग कॉलेजों से निकलने वाले स्टूडेंट्स इस योजना का लाभ उठा सकते हैं। जो आईआईटी और आईआईएम जैसे संस्थानों से सर्टिफिकेट कोर्स कर और एडवांस हो सकते हैं।

तमन्ना होगी पूरी

स्टूडेंट्स की तमन्ना होती है कि वह आईआईटी और आईआईएम जैसे संस्थानों में पढ़ें। लेकिन हाई मेरिट होने के कारण वह नहीं जा पाते तो उनके लिए यह कॉन्सेप्ट बेस्ट हो सकता है। जिनकी तैयारी रहेगी तो उनके द्वारा लिए जाने वाले ऑनलाइन टेस्ट को क्लीयर कर सकते हैं।

संजय दुबे, आईआईटी कोचिंग

Central varsities: HRD Ministry pushes for common norms

RUHI TEWARI

NEW DELHI, SEPTEMBER 17

AS PART of its efforts to introduce one legislation for all central universities, the Human Resource Development Ministry has circulated the draft bill to all such varsities, asking them to revert with suggestions within three weeks.

According to minutes of the retreat of vice-chancellors chaired by HRD Minister Smriti Irani in Chandigarh last week, the "Single Act for Central Universities has been circulated to all Central Universities for inviting their suggestions."

The draft bill is based on

recommendations of the AM Pathan committee and has been criticised for compromising the autonomy of these universities.

There are currently 40 central universities under the Ministry, of which 16 were created in 2009 under one Act, while the rest are governed by separate Acts of Parliament.

"No consensus has been evolved on the issue even though its clear the Ministry is keen on it. But yes, questions of autonomy and protecting the distinct character of each university cannot be ignored," a V-C, who attended the retreat, said.

Officials said the idea behind a single legislation is to

THE DRAFT bill has been criticised for compromising the autonomy of these universities

bring in "greater uniformity" in terms of structure and governance, even while retaining the universities' academic autonomy. To "expedite the process" of appointments and ensure that the selection process is not upheld due to the unavailability of one nominee, the Ministry has decided to propose five names as Visitor's nominees for selection committees, as against the one

it proposes now.

"There was a common consensus that MHRD will propose a panel of five names as Visitor's nominees for the Selection Committees of each university across the disciplines of academic as well as non-academic positions separately," the minutes state.

"The idea is that if one member is not available then the next one on the panel can step in and the process doesn't get held up," an official said.

The Ministry has also directed the V-Cs to form a committee to prepare a proposal to convert posts of professor and associate professor to assistant professor. The committee will have to prepare a re-

port and submit it to UGC in a month's time.

Officials said the idea behind the proposal is to give greater flexibility in appointments by re-appropriating positions within the cadre. The availability of a large number of candidates for posts of assistant professor has also prompted this move. If the norm is implemented, a university would be free to appoint an assistant professor in place of a professor/associate professor if it is unable to get applicants for the latter.

Universities have also been asked to send all MoUs signed by them in the last 20-25 years to the Ministry within one month.

HRD Minister: India to experience new education policy

India is going to experience a revolution in academics, as a new education policy is going to be introduced on the basis of academic merit and how curriculum should be taught, Human Resource Development Minister Smriti Irani has said.

In a press conference Smriti Irani highlighted the initiatives that her ministry has put forth in the first 100 days of the national democratic alliance government.

The discussions on the new policy are going to be carried out at the regional as well as the national level said the minister. "We are trying that this deliberation on the national education policy begins across the country from January 2015, and the views of all stakeholders on which course should be structured in which way will also be taken," added Smriti.

Smriti also informed the press that the University Grants Commission (UGC) is working on the basis of the National Education Policy, which was framed in 1986. The National Education Policy, 1986 advocates the 10+2+3 system. Irani also added that a review of the Sarva Siksha Abhiyan (SSA) and the RTE will soon be carried out.

"We will carry out a review on these issues. In the last 100 days, when I have met many chief ministers and other officials even they have presented their challenges before us on these issues and even the state education secretaries have expressed the need for a review, and we will soon have the review process," she said.

IISc: High on Citation, Low on Academic Reputation

<http://www.newindianexpress.com/cities/bangalore/IISc-High-on-Citation-Low-on-Academic-Reputation/2014/09/17/article2435312.ece>

BANGALORE: The only saving grace for Bangalore in the latest Quacquarelli Symonds (QS) World University Rankings announced on Tuesday is the Indian Institute of Science(IISc), which ranks 11th globally for high research output. The 105-year old premier institute made a significant jump this year in the area of citations-per-faculty, which carries a ranking weightage of 20 per cent and is an indicator of an institute's research output.

Last year's rankings placed IISc 24th globally in this area. According to QS, a citation means a piece of research being cited (referred to) within another piece of research. Generally, the more often a piece of research is cited by others, the more influential it is. While it is high on citations, the IISc remains one of the top 200 institutions. In fact, apart from the Indian Institute of Technology, Bombay (222), IIT Delhi (235), IIT Kanpur (300), IIT Madras (322) and IIT Kharagpur (324), the IISc does not even figure in the top 700 institutions based on overall indicators.

The Massachusetts Institute of Technology leads in the rankings for the third consecutive year and increased its year-on-year citations- per-faculty by 14 per cent. Imperial College London also reported a 14 per cent increase in this metric compared to 11 per cent by Cambridge and 2 per cent by Harvard. The California Institute of Technology remains the world's top university for research citations.

“To be included in the overall ranks, universities need to be active in at least two of these macro faculty areas - arts and humanities, social sciences, life sciences and medicine, natural sciences, engineering and technology. They must offer undergraduate and postgraduate programmes. The IISc is active only in one macro faculty area,” said QS World University Rankings spokesperson Simona Bizzozero.

The IISc is ranked 185th for academic reputation (206 last year), but suffers on the employer reputation aspect with a global rank of 332. It does not figure in the top 200 in the areas of facultystudent ratio, international faculty and students. A total of 31 countries are represented in the top 200. United States is the dominant nation, with 51 institutions, ahead of the UK (29), Germany (13), Netherlands (11), Canada (10), Japan (10) and Australia (8).

Tribune, ND 18/09/2014 P-2

DU ranks top among varsities other than IITs

ANANYA PANDA
TRIBUNE NEWS SERVICE

NEW DELHI, SEPTEMBER 17

Delhi University has been placed sixth in the overall ranking in India after the five IITs -Bombay (222), Delhi (235), Kanpur (300), Madras (322) and Kharagpur (324) among 800 universities across the world by the QS World University Rankings 2014-15.

In terms of "Academic Reputation", DU ranks second (196) in the country followed by IIT Bombay which tops the list of Indian vari-

ties (160). On the same count, DU's ranking is better than even four other IITs mentioned above (Delhi-199, Kanpur-229, Madras-296, Kharagpur-328).

When it comes to "Employer Reputation", the varsity has improved to 122nd position in global rankings and bagged the third position after IIT-Bombay (60) and IIT-Delhi (90) respectively.

Put in the group-421-430 in all-round popularity chart, DU has moved up by 20 ranks as compared with

“DU has been placed at a higher position in global rankings than five other Indian IITs which have a very different structure since they are self-contained small campuses”

Malay Neerav, media coordinator

previous year's rankings and maintained a lead of at least 130 points from the University of Mumbai (551-600 points) followed by University of Kolkata (601-650), Banaras Hindu University (701+).

DU has also left other

such universities behind in "Faculty Areas", such as Social Science and Management wherein it has been ranked 166 globally and in Arts and Humanities and Natural Science, the university remains second with a world ranking of 194 and

220 respectively.

"DU has been placed at a higher position in global rankings than five other Indian IITs which have a very different structure since they are self-contained small campuses," said Joint Dean, Students' Welfare and media coordinator, Prof Malay Neerav.

The survey for QS ratings is based on various parameters, including academic reputation, teaching and research standards, employer reputation, faculty-student ratio, etc.

डीयू बनी इंडिया की टॉप यूनिवर्सिटी

नई दिल्ली (एसएनबी)। विश्वस्तर पर की जाने वाली क्यूएस वर्ल्ड रैंकिंग में भारत में यूनिवर्सिटी लेवल पर दिल्ली विश्वविद्यालय को नंबर वन स्थान हासिल हुआ है। हालांकि देश के पांच आईआईटी डीयू से ऊपर हैं। इसमें आईआईटी दिल्ली दूसरे, मुंबई पहले, कानपुर तीसरे, मद्रास चौथे एवं खड़गपुर पांचवें पायदान पर हैं। यूनिवर्सिटी लेवल पर डीयू को 421-430 प्वाइंट्स मिले हैं, जो भारत में किसी भी विश्वविद्यालय में सर्वाधिक है। देश में यूनिवर्सिटी लेवल पर डीयू के बाद यूनिवर्सिटी ऑफ मुंबई दूसरे, यूनिवर्सिटी ऑफ कोलकाता तीसरे, बनारस हिन्दू विश्वविद्यालय चौथे पायदान पर है। जबकि जेएनयू एकेडमिक लेवल पर पांचवें पायदान पर है। क्यूएस रैंकिंग में विश्व में मैसाचुसेट्स इंस्टीट्यूट ऑफ टेक्नोलॉजी पहले पायदान पर है। इस रैंकिंग के लिए विश्वभर में 60 हजार एकेडमिक्स के बीच में सर्वे किया गया था। डीयू के प्रवक्ता डॉ. मलय नीरव ने बताया कि हाल में ही 2014-15 के क्यूएस वर्ल्ड यूनिवर्सिटी रैंकिंग में देश के पांच आईआईटी के बाद यूनिवर्सिटी लेवल पर डीयू नंबर वन यूनिवर्सिटी बन गई है। क्यूएस रैंकिंग में डीयू इस बार बीते साल की रैंकिंग से 20 रैंक ऊपर चला गया है। डीयू को यूनिवर्सिटी ऑफ मुंबई से 130 प्वाइंट्स अधिक मिले हैं।

इम्प्लॉयर रेपुटेशन मामले में भी गाड़ा झंडा

इम्प्लॉयर रेपुटेशन मामले में भी 122 प्वाइंट्स के साथ डीयू पहले पायदान पर है। जबकि यूनिवर्सिटी ऑफ मुंबई 242 प्वाइंट्स के साथ दूसरे स्थान पर है। फैकल्टी एरियाज की बात करें तो इसमें भी 166 प्वाइंट्स के साथ डीयू पहले नंबर पर है। जबकि जवाहरलाल नेहरू विश्वविद्यालय दूसरे नंबर पर है। नेचुरल साइंस सेक्टर में 220 प्वाइंट्स के साथ डीयू दूसरे पायदान पर है। जबकि आर्ट एंड ह्यूमैनिटिज सेक्टर में 140 प्वाइंट्स के साथ जेएनयू पहले व 194 प्वाइंट्स के साथ डीयू दूसरे स्थान पर है।



- क्यूएस रैंकिंग में नंबर वन
- आईआईटी मुंबई इंडिया लेवल का टॉप इंस्टीट्यूट
- आईआईटी दिल्ली दूसरे नंबर पर
- आईआईटी कानपुर, मद्रास एवं खड़गपुर टॉप रैंकिंग में
- विश्व में मैसाचुसेट्स इंस्टीट्यूट ऑफ टेक्नोलॉजी पहले पायदान पर

एकेडमिक रेपुटेशन सेक्टर में भी नंबर वन

एकेडमिक रेपुटेशन सेक्टर में भी डीयू को पहला स्थान हासिल हुआ है। क्यूएस वर्ल्ड रैंकिंग में इस सेक्टर में डीयू को 196 प्वाइंट्स मिले हैं। जबकि दूसरे नंबर पर जवाहरलाल नेहरू विश्वविद्यालय को 238 प्वाइंट्स मिले हैं, यूनिवर्सिटी ऑफ कोलकाता 347 प्वाइंट्स के साथ तीसरे पायदान पर है।

वर्ल्ड रैंकिंग में टॉप टेन यूनिवर्सिटी-इंस्टीट्यूट

1. मैसाचुसेट्स इंस्टीट्यूट ऑफ टेक्नोलॉजी
2. यूनिवर्सिटी ऑफ कैम्ब्रिज-इम्पेरियल कॉलेज ऑफ लंदन
4. हॉवर्ड यूनिवर्सिटी
5. यूनिवर्सिटी ऑफ ऑक्सफोर्ड-यूनिवर्सिटी कॉलेज ऑफ लंदन
7. स्टेनफोर्ड यूनिवर्सिटी
8. कैलिफोर्निया इंस्टीट्यूट ऑफ टेक्नोलॉजी
9. प्रिंसटन यूनिवर्सिटी
10. येल यूनिवर्सिटी

HT.Com ND 18.09.2014 P-6

IIM-C among the best non-European B-schools



- IIM-Calcutta has been ranked number one and adjudged the best management institute globally for study in economics. It also ranks number one in the careers rank.

HT Education Correspondent

IIM Calcutta has been ranked among the best from across all non-European B-schools. It has been ranked 13 in the 2014 Financial Times Master in Management ranking, post an impressive debut at rank 19 in the list of 70 B-schools in 2013. IIM-C is the highest ranked non-European B-school.

With only six non-European schools in the list of top 70, the other Indian school in the ranking is IIM Ahmedabad at rank 16. IIM-C has been ranked number 1 and adjudged the best management institute globally for study in economics.

A valuable factor in the ranking methodology is the careers rank under the the alumni career progress section of parameters for which the batch of 2011 had been considered.

IIM Calcutta ranks number one in the careers rank signifying that the alumni have registered the best career growth (calculated in terms of seniority and company size and employee strength) over the last three years in comparison to all other participating B-Schools.

Professor Ashok Banerjee, dean, new initiatives and external relations (NIER) says, "FT rankings is considered the gold stand-

WITH ONLY SIX NON-EUROPEAN SCHOOLS IN THE LIST OF TOP 70, THE OTHER INDIAN SCHOOL IN THE RANKING IS IIM AHMEDABAD WHICH STANDS AT 16TH RANK

ard in B-School ranking and we are indeed happy and proud to make such progress in a single year.

This is a significant milestone in our globalisation journey along with our recent achievements including the AMBA (association of MBAs), AACSB (advance collegiate schools of business) accreditations and the CEMS membership. The rankings will help us network more closely with the top European B-schools."

It is also interesting to note that the FT has devised a concept of clustering. The top 14 schools form the top cluster, with IIM Calcutta being ranked 13.

While 195 points separate the top ranked school from rank number 70, the differences are small within the group. The second cluster includes schools from rank 15 to 33; IIM Ahmedabad belongs to this cluster.

योजना : देश के शीर्ष प्रौद्योगिकी संस्थान अपनाएंगे गांवों के समूह को

मोदी का विकास मॉडल जमीन पर उतारेंगे विशेषज्ञ

मुकेश केजरीवाल, नई दिल्ली

देश के शीर्ष वैज्ञानिक और तकनीकी विशेषज्ञ अब गांवों के विकास में सीधे जुटने वाले हैं। योजना है कि ये न सिर्फ गांवों की समस्याओं की पहचान करेंगे, बल्कि उनके समाधान के लिए तकनीक आधारित प्रारूप भी तैयार करेंगे। इतना ही नहीं, पहली बार उन प्रारूपों को लागू कराने की जिम्मेवारी भी ये खुद संभालेंगे। तकनीकी विशेषज्ञों के नेतृत्व में चलाई जाने वाली इस योजना में केंद्र सरकार के कई अहम मंत्रालय साझेदार रहेंगे।

'उन्नत भारत अभियान' के दस्तावेजों के मुताबिक, गांवों का विकास अब सिर्फ पंचायती राज संस्थाओं या मौजूदा सरकारी ढांचे के जिम्मे नहीं रहेगा। गांवों के विकास में अब तकनीकी विशेषज्ञों का सीधा दखल होगा। शुरुआत के लिए पांच प्रमुख विषयों की पहचान की गई है। 'स्वस्थ भारत, स्वच्छ भारत, स्वावलंबी भारत, संपन्न भारत' को

ये पांच उपाय बनाएंगे भारत को 'उन्नत'

● स्थानीय रोजगार का विकास करना	● वर्षा जल से पेयजल व सिंचाई की व्यवस्था करना	● वैकल्पिक ऊर्जा स्रोतों के उपयोग को बढ़ावा देना	● गौ आधारित कृषि व अर्थव्यवस्था विकसित करना	● आधारभूत ग्रामीण संरचना की उपलब्धता में सहायता।
--	---	--	---	--

योजना का लक्ष्य वाक्य बना कर इन्हीं विषयों को योजना का मुख्य क्षेत्र बनाया गया है। साथ ही पेयजल व सिंचाई, वैकल्पिक ऊर्जा और पंचगव्य पर शोध और विकास को भी इसमें शामिल किया गया है। गाय से मिलने वाले पांच उत्पादों दूध, दही, घी, गोबर और गोमूत्र को पंचगव्य कहा जाता है। इस योजना का समन्वय कर रहे आइआइटी दिल्ली के ग्रामीण विकास और

प्रौद्योगिकी केंद्र के प्रो. राजेंद्र प्रसाद कहते हैं कि यह योजना इस लिहाज से अनूठी है कि इसमें सिर्फ विकास के प्रारूप ही नहीं बनाए जाने, बल्कि उन्हें क्रियान्वित भी करवाना है। आइआइटी जैसे प्रौद्योगिकी संस्थानों ने अपने सीमित संसाधनों में अब तक ग्रामीण विकास में उपयोगी हो सकने वाले कई प्रारूप जरूर तैयार किए हैं, लेकिन अक्सर ये प्रारूप क्रियान्वित नहीं हो

पाते। इस बार उनके क्रियान्वयन को भी योजना में शामिल किया गया है। योजना के मुताबिक, देश भर के आइआइटी और राष्ट्रीय प्रौद्योगिकी संस्थानों (एनआइटी) सहित 50-60 राष्ट्रीय संस्थान इसमें शामिल होंगे। निचले स्तर तक इसके क्रियान्वयन के लिए पांच से छह हजार तकनीकी संस्थानों को जोड़ा जाएगा। चयनित संस्थाओं को एक क्षेत्र के कुछ गांवों का समूह बना उनकी समस्याओं की पहचान करने से लेकर विकास की योजना तैयार करने की जिम्मेवारी दी जाएगी। इस संबंध में आर्थिक और तकनीकी जरूरत का आकलन करने और योजना को क्रियान्वित करने की भी जिम्मेवारी इन्हीं की होगी। इसमें वे संबंधित संस्थाओं, सरकारी तंत्र और पंचायती राज संस्थानों की मदद लेंगे। निचले स्तर पर तैयार किए गए ये प्रस्ताव पहले प्रदेश स्तर पर ग्रामीण प्रौद्योगिकी रचना समूह (रूटैग) के सामने और फिर राष्ट्रीय कार्यकारिणी में रखे जाएंगे।



गंगा तीरे प्रदूषण निवारण को लगेंगे 'जीरो डिस्चार्ज टायलेट' सिस्टम

गंगा निर्मलीकरण पर जोर से आईआईटी कानपुर द्वारा विकसित तकनीक की पूछ बढ़ी

नितेन्द्र लाल दास/एसएनबी

कानपुर। देश में नरेन्द्र मोदी की अगुवाई में नयी सरकार के गठन के बाद गंगा निर्मलीकरण पर जोर के परिप्रेक्ष्य में आईआईटी कानपुर द्वारा विकसित 'जीरो डिस्चार्ज टायलेट' सिस्टम की पूछ बढ़ गयी है। गंगा बेसिन डेवलपमेंट प्लान के तहत फिलहाल इस सिस्टम को बद्रीनाथ, केदारनाथ जैसे धार्मिक स्थलों के साथ ही गंगा के उद्गम क्षेत्र में गंगा तीरे सामुदायिक शौचालय के रूप में स्थापित करने को लेकर सहमति बनी है। यदि सफलता मिली तो देशभर में गंगा तीरे जीरो डिस्चार्ज वाले शौचालयों की स्थापना की राह खुल सकती है।

गत वर्ष इलाहाबाद में सम्पन्न कुंभ व माघ मेले में 'जीरो डिस्चार्ज टायलेट' सिस्टम का सफल उपयोग किया जा चुका है, जहां लाखों लोगों ने इसका उपयोग किया। आईआईटी ने कुंभ मेले के लिए मोबाइल जीरो डिस्चार्ज शौचालयों का निर्माण अल्प समय में एक माह के अंदर किया था। इस प्रयोग से उत्साहित आईआईटी ने उक्त शौचालयों का प्रयोग गंगा तीरे स्थित शहरों/कस्बों में सामुदायिक शौचालय के रूप में करने का प्रस्ताव गंगा बेसिन डेवलपमेंट अथारिटी को किया। अथारिटी ने इन शौचालयों को उपयोग में लाने की हरी झंडी दे दी है।

आईआईटी कानपुर ने 'जीरो डिस्चार्ज टायलेट' सिस्टम का विकास अपने इनवायरमेंटल इंजीनियरिंग एंड मैनेजमेंट कार्यक्रम के तहत किया है। इस सिस्टम को विकसित करने वाली टीम के अगुवा आईआईटी के प्रोफेसर विनोद तारे ने बताया कि भारत सरकार के सहयोग से गंगा बेसिन प्लान के तहत फिलहाल बद्रीनाथ व केदारनाथ में इन शौचालयों को लगाये जाने पर सहमति बनी है। शीघ्र ही गंगा के उद्गम क्षेत्र में भी गंगा तीरे चिह्नित स्थानों पर 'जीरो डिस्चार्ज टायलेट' स्थापित किये जाएंगे, जिसको लेकर बातचीत चल रही है। उनका मानना है कि शहरों के स्थानीय प्रशासन के रुचि लेने पर आम शहरों में भी इस प्रकार के शौचालय स्थापित किये जा सकते हैं। फिलहाल कोशिश गंगा किनारे स्थित शहरों/कस्बों में ऐसे शौचालय स्थापित कराये जाने की है।

खाद संग बनायी जा सकती है बिजली :
'जीरो डिस्चार्ज टायलेट' सिस्टम से उत्सर्जित वेस्ट से खाद बनाने के साथ ही बिजली भी उत्पादित की जा सकती है। इससे सीवर व नदियों में प्रदूषित जल जाने की समस्या भी धीरे-धीरे नियंत्रित की जा सकती है। उत्सर्जित वेस्ट से वर्मी कम्पोस्ट, नाइट्रोजन, फास्फोरस व पोर्टैशियम जैसे आर्गेनिक एंड केमिकल खाद बनाये जा सकते हैं।

THE MISSING WOMEN OF INDIAN SCIENCE

THE OTHER HALF Despite measures to make the fields of science and technology more inclusive, the number of women in top positions remains low

Poulomi Banerjee

It offers little scope for display of physical prowess or machismo, yet the arena of science and scientific research is as male dominated as the defence or emergency services. Fresh graduates in recent years, may have swelled the ranks of software developers in information technology firms, but when it comes to core engineering and science, campuses, research institutes and laboratories still remain a boys club, where the few women present are more of an oddity than the norm.

Recently, the Ministry of Human Resource Development attempted to correct the imbalance, by nominating Tessy Thomas and Vijayalakshmi Ravindranath to the Indian Institute of Technology (IIT) Council, the governing body for all 16 IITs. These are the first women scientists to have been nominated to the council.

The union minister for science and technology, Jitendra Singh, also announced a fresh scheme titled KIRAN (Knowledge Involvement in Research Advancement through Nurturing) which will seek to bring gender parity in the field of science and technology by creating leadership positions for women. The scheme would look at a mobility mechanism for women scientists who have to change residences due to family compulsions and provide them with feasible employment opportunities.

The Department of Science and Technology, one of three major departments under the Ministry of Science (the other two being the Department of Biotechnology and the Department of Science and Industrial Research) already has in place a Women Scientists Scheme. "Many women scientists suffer a break in their careers because of motherhood and family responsibilities. This scheme provides opportunities to women scientists and technologists between the age group of 30-55 years who desire to return to mainstream science and work as bench-level scientists," explains Dr DR Prasada Raju, scientist-advisor at the Department of Science and Technology.

Under this scheme, the department offers scholarships for research in basic and applied science, scholarship for research in science and technology-based societal programs and internship for self-employment. Additionally, a mentoring programme has been initiated to improve PhD standards in engineering institutions in which women scientists and their PhD supervisors participated. "Traditionally, social conditioning has not been in favour of seeing women as engineers. Their number is more in the life sciences. In many southern states, where engineering institutes have 40% reservation for women, the number of women studying

engineering is more," says Dr Prasada Raju. The department has also been providing support for six Women's Universities under the CURIE (Consolidation of University Research for Innovation and Excellence in Women Universities) programme since 2009. "We have also started leadership programmes for women scientists, because their numbers are few at the top," adds Raju.

The department's Annual Report 2013-14, available on its website, mentions that the department received a total of 1,037 (plus 300 in Societal Research Fellowship) new proposals from women scientists in this period under the women's empowerment schemes, of which a total number of 267 projects have been sanctioned. The numbers look encouraging when seen in isolation.

But Dr Jyoti Sharma, principal scientific officer, in-charge, science and technology based Societal & IPR Research Fellowship for Women scientists, reveals that of the total scientific manpower in India today, the percentage of women in full-time employment at research and development organisations is only 17%. Also, earlier only 13% of fresh research proposals received in a year would be from women scientists. Today, after a decade of efforts to empower them, the number has gone up to 31%.

Many complain of a gap when it comes to women scientists who have received prestigious awards. According to figures presented in a paper by Dr Vineeta Bal of the National Institute of Immunology, New Delhi, of the total 387 Shanti Swarup Bhatnagar awardees between 1958 and 2004, only eight have been women. Physicist Rohini Godbole feels the only way to ensure recognition for women scientists and boost their presence at the top, is to increase their number at the grass-roots level.

"We need to stem the leak in early careers for women scientists and realise that the solution to the career-life balance is not only providing ways to come back after a break but to make the passing over the speed breaker for the young ones, manageable," she says.

A 2008 report of the National Task Force for Women in Science had submitted a list of recommendations to attract and nurture talents to women in science. In addition to an annual gender audit, the task force had suggested introducing time-bound recruitment target systems, having women's representations in search and hiring committees and promoting women scientists as science planners and managers. Still, six years down the line, while steps have been taken to make science more women friendly (the Department of Science and Technology claims KIRAN will cover most of the task-force's recommendations) the glass ceiling is yet to be broken.

■ (Below) Dr Vineeta Bal; (R) Dr Tessy Thomas
VIPIN KUMAR/HT
FILE PHOTOS



Talent from Outer Space

Major missions like moon and Mars have helped ISRO spruce up its image and get new talent. Hari Pulakkat unpacks how Mangalyaan is helping ISRO attract more and better talent

Men and Money in Space

The world's major space powers at a glance

	Staff Strength	Budget
ISRO	17,000	\$1.1 billion
NASA	18,000	\$17.8 billion
European Space Agency	2,000	\$5.51 billion
Russian Federal Space Agency	10,000	\$5.6 billion
China National Space Administration		\$1.3 billion

Note: These figures should not be compared directly, as the number of partners and contractors differ widely in each country



ISRO Chairman K Radhakrishnan

Priyank Gupta joined the Indian Space Research Organisation (ISRO) in 2003. As a child he was deeply interested in space engineering and had read a lot about NASA, but he knew little about ISRO or its work. He used to scan his career options as he studied mechanical engineering in Gwalior, and started following the space organisation through newspapers. ISRO had by then begun tasting success in its launches. Gupta applied for a job in ISRO and got selected.

For a fresh engineer in 2003, it was not an easy decision to join a public sector organisation. Gupta had seriously considered other avenues. He had performed well in the national qualifying examination for engineering masters admissions, and was toying with the idea of going to an IIT. Some of his friends then convinced him to join ISRO. "They told me that I would be looking for an R&D organisation after my master's degree," says Gupta. "So why not join ISRO and let them sponsor your master's course?"

Now, Gupta works on the next generation Geostationary Launch Vehicle (GSLV), the heavy lifter that ISRO is developing for launch next year, and sits in its design review committee. ISRO sponsored him for his master's degree in aerospace engineering from the Indian Institute of Science, and he is looking forward to the day when he can do a PhD. Meanwhile, he works on challenging projects. His former classmates working for top companies earn more money than Gupta. They hop jobs as they get bored at work quickly. "My classmates are not content with what they do no matter where they join," says Gupta.

In 2003, ISRO was not getting enough of young engineers like him. The organisation did not have big successes, and its future was uncertain in the public eye. Meanwhile, the private sector led by software companies had grown significantly since the 1990s, and was paying the graduating engineers handsomely by Indian standards. By the start of the new millennium, multinational

also expanded their R&D centres around the country, and these centres looked like an attractive destination for an undergraduate engineer. The public sector started losing out.

It all changed after the moon mission. This had been in the works for a while, but the actual launch and its success in 2008 caught the public imagination. Job applications to ISRO skyrocketed, and continued to rise through the next five years. Now, the Mars mission has maintained public interest in ISRO. In 2007, ISRO had about 45,000 applicants for 351 entry-level jobs. In 2013, it had nearly 1.4 lakh applicants for 83 jobs. The number of jobs has declined because it added an additional stream of recruitment, the Indian Institute of Space Science and Technology (IIST) in Thiruvananthapuram, an engineering institute set up by ISRO and now a deemed university.

This increase of public interest happened in other institutions too. The Department of Atomic Energy (DAE) had a similar spurt of job applications after the nuclear tests in 1998. Unlike the DAE, ISRO has been able to maintain public interest through the Mars mission, and should be able to continue to do so through future missions to the moon, sun and human spaceflight. It is a big change of public perception for ISRO from the 1990s, when it was ridden with launch failures and public scandals. The number of applicants for jobs then was only a few thousand. "The perception of the people changed after the successful programmes," says P Kunhikrishnan, project director of PSLV.

ISRO did not have so many technology development programmes in the 1990s. So, an engineer who joined the organisation could work on one development project, after which monotony set in. Some

There's a big change in public perception for ISRO from the 1990s, when it was ridden with failures and scandals. The no. of applicants for jobs then was only a few thousand.

of those who left the organisation more than a decade ago, and are now in the private sector, had told ET that they were bored with the repetitive jobs. New engineers at the Vikram Sarabhai Space Centre (VSSC) could work on either the PSLV or the GSLV. The PSLV matured quickly, while the GSLV development was focussed on the cryogenic engine.

Now the situation is a bit different. Geethu Jacob, a young engineer who joined ISRO last year from IIST, was determined to be an aerospace engineer, and joined IIST because she could not get into an IIT. But now she has her first job working on the crew module of the GSLV that will power a human flight. After several years, she could be sponsored by ISRO for a master's degree programme. "There is an opportunity in ISRO to work in core engineering," says S Somanath, project director of GSLV Mark III. "Many private sector jobs are in IT and business."

Along with the recent increase in applicants, there was another change: the geographical spread of the recruits. If you go to VSSC now, for example, you would find most of the senior managers to be from Kerala or the neighbouring Tamil Nadu. This was because a large number of recruits through the 1980s and 1990s were from there. Now, the recruits come from all over the country. So, ISRO is set to acquire a more pan-Indian tinge over the decade. In recent times, the remuneration has changed too, and salaries have increased substantially relative to earlier government salaries.

In the future, ISRO would continue to face pressure from private sector. As its programmes improve in sophistication, so would the programmes of private R&D centres. "Earlier, private industry jobs were not sophisticated," says ISRO Chairman K Radhakrishnan. "But now the value addition is high in industry." ISRO still does not get the top-notch graduate engineers from the best IITs. But it could manage well if the next best make the organisation one of their top choices.

Moon mission launch and its success in 2008 caught the public imagination. Job applications to ISRO skyrocketed and continued to rise for the next five years

India ranks 6th in billionaire numbers

Country's total billionaire wealth fell by \$5 bn to \$175 bn; total wealth of world's billionaires rose 12% to \$7.3 trillion

PRESS TRUST OF INDIA

Singapore/New Delhi, 17 September

India has retained its sixth position in the number of billionaires residing in the country. It is home to 100 such people, with a collective net worth of \$175 billion. Globally, the number of 'uber-rich' people has reached a record 2,325.

According to the Wealth-X and UBS Billionaire Census 2014, released on Wednesday, though the number of billionaires in the country has decreased from 103 last year, India still enjoys a decent sixth position (the same as last year) in the top 10 league.

Interestingly, India has a higher number of billionaires than Switzerland, Hong Kong and France, among others. With 28 billionaires, financial capital Mumbai is among the top 20 'billionaire cities' globally — the top being New York, which is home to 103 billionaires.

On the top 40 list of billionaire countries/territories, the US maintained its position as the first, with a population of 571 billionaires in 2014, followed by China (190) and the UK (130) respectively in the second and third positions.

According to the report, which looks at the global billionaire population from July 2013 to June 2014, India's billionaire population has decreased three per cent to 100 and the total billionaire wealth has fallen by \$5 billion to \$175



THE SUPER-RICH CLUB

- India has 100 billionaires, collectively having \$175 bn in networth
- The country had 103 billionaires in 2013
- There are 2,325 billionaires worldwide, with the addition of 155 new ones in 2014
- With 28 billionaires, Mumbai is among the top 20 'billionaire cities' globally
- New York is home to 103 billionaires
- Europe, with 775 billionaires, is the region with the most billionaires and billionaire wealth (\$2.37 trillion)

billion. However, the world's population of billionaires continues to grow. The global billionaire population reached a record 2,325, with addition of 155 new ones in 2014, a rise of seven per cent from last year.

"The combined wealth of the world's billionaires increased 12 per cent to \$7.3 trillion, higher than the combined market capitalisation of all the companies that make up the Dow Jones Industrial Average," the report said.

Europe, with 775 billionaires,

is the region with the most number of billionaires and their combined wealth (\$2.37 trillion). Asia boasts the largest billionaire wealth increase, with the fortunes of the region's billionaires growing 18.7 per cent over the past year. "The region (Asia) is responsible for 30 per cent of the net increase in global billionaire wealth in 2014. Asia's billionaire population grew 10 per cent in the year, with 52 new entrants into the billionaire club. Of them, 33 are from China," the report said.

Deccan Herald, ND 18/09/2014 P-12

Mars much better than moon, says 'Buzz' Aldrin

BEIJING, AGENCIES: Apollo 11 astronaut Buzz Aldrin will support a new mission to the moon by countries other than the US, and is looking forward to a manned mission to Mars.

One of the icons of space exploration, Aldrin was the second man to set foot on the moon July 20, 1969, only minutes after Neil Armstrong.

Now, 45 years after the historic mission, Aldrin longs for a return to the moon. "I support a return, but not for Nasa, for every other country," Aldrin said in an exclusive interview with Xinhua at the recent meeting of the Association of Space Explorers in Beijing.

Aldrin explained that Americans have been there, and know what needs be done to land on the moon. Aldrin believes the US should build a permanent station on the moon's surface, so that China's Shenzhou spaceships, Russia's Soyuz and other spaceships could go there.

After setting foot on the lu-



nar surface, Aldrin uttered the words "magnificent desolation", which later became the title of his book. "It was magnificent for human beings to progress to the point where we could make airplanes, spaceships and go to the moon. It was a magnificent achievement. But looking around, it was the most desolate, lifeless and not welcoming place," Aldrin said.

"No air. In one month, 14

days very hot and 14 days very cold and darkness. (The moon is) not a very good place to live. Mars is much better," he added.

He also clarified that he was misunderstood and did not see any unidentified flying objects (UFOs) during the mission as some claimed.

In an interview on the Science Channel in 2005, Aldrin said the crew of Apollo 11 had seen a UFO on their way to the moon. However, Aldrin later said that his words were taken out of context.

Aldrin told agencies that he was convinced that he saw light reflected off one of the four panels which split away in different directions when the lander detached from the rocket, but he did not know which panel the reflected light was from, so it was "unidentified".

"We did not say 'Houston there is a spacecraft following us to the moon.' We did not say that," Aldrin added.

Deccan Herald, ND 18/09/2014 p-12

Nasa to announce US human spaceflights

» The US space agency said on Wednesday that a “major announcement” is coming regarding the return of human spaceflight launches to the United States, AFP reports from Washington.

Nasa, which has been unable to send people to space since the retirement of the space shuttle in 2011, said the announcement would be made at a news conference from Kennedy Space Center in Florida, and would be broadcast live on Nasa’s television station and website.

“We’re returning human spaceflight launches to America. Learn who will take crews to the ISS (International

Space Station),” Nasa said on Twitter.

A Nasa spokesman declined to give further details until the announcement, which is timed to coincide with the closing of the US markets.

The agency has spent hundreds of millions to help private companies like SpaceX, Boeing and Sierra Nevada develop their own crew transport vehicles so that Americans could launch flights to the ISS by 2017.

In the meantime, the world’s astronauts have had to rely on Russia’s Soyuz space-ships for transport to the orbiting outpost at a cost of \$70 million per seat.