

Green toilets future sanitation solutions

Vanita Srivastava

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NEW DELHI: Imagine a multi-user toilet facility that combines hygiene safety, user friendliness and environmental protection, or a toilet with an onsite waste water treatment and recycling unit that can be powered by solar panels or by electricity.

These are the prototypes developed by IIT Kanpur and California Institute of Technology (CALTECH).

The Nano Membrane Toilet by the Cranfield University, UK has a waterless flush that blocks the user's view of the waste and prevents odours from escaping. The Sot-Char Toilet of the University of Colorado uses solar energy to transform both faecal material and urine into disinfected commercially viable end products such as solid fuel, heat and fertilizer.

These were among a pool of 45 exhibits from 15 countries at Reinvent the Toilet Fair organised by Bill and Melinda Gates Foundation.

"Creating sanitation infrastructure and public service that works for everyone is a great challenge. There is an urgent need to go for a decentralised approach. The new toilets should be more affordable, better for the environment and less wasteful of resources," says Hari Menon, deputy director, India Country Programmes, Bill and Melinda

CREATING SANITATION INFRASTRUCTURE AND PUBLIC SERVICE THAT WORKS FOR EVERYONE IS A GREAT CHALLENGE. THERE IS AN URGENT NEED TO GO FOR A DECENTRALISED APPROACH.

HARI MENON, official of Bill and Melinda Gates Foundation

Gates Foundation.

From the last fair, most prototypes have become compact and more cost-effective, he said adding: "Now, we have to value engineer them and go for field-testing."

Co-hosted with department of biotechnology and other government partners, the fair, held for the second time after 2012 showcased innovations that are creating a new vision for the next generation of sanitation.

Six Indian innovators were selected to contribute to the development of sanitation solutions as part of the Reinvent the Toilet Challenge.

Yan Qu, a post doctoral researcher from CALTECH said: "We already have a prototype in Ahmedabad and soon will be establishing one in Kerala also."

Using technology for better sanitation

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No fee hike, students to pay back IIM-A when they earn

BS REPORTERS

Ahmedabad/Mumbai, 22 March

In a first, graduating students from the Indian Institute of Management Ahmedabad (IIM-A) have decided to pledge ₹200 per month in favour of the institute from their salaries for one year.

“For the first time, students of the outgoing batch of 2012-14 at IIM-A have pledged a monthly commitment of ₹200. This is commendable because they are doing it even before they have received their first pay cheque,” said Ashish Nanda, director, IIM-A. The institute had a 2012-14 graduating batch size of 429 students for its flagship management programme, 85 for its postgraduate programme for executives and 10 for its fellow programme in management.

In a similar gesture in 2010, students from the Indian



IIM FEES

(Two-year, in ₹ lakh)

Institute	Batch 2012-14	Batch 2013-15
IIM-A	15.50	16.60
IIM-B	15.00	17.00
IIM-C	13.50	13.50
IIM-L	12.50	10.80
IIM-I	13.00	13.00
IIM-K	9.75	9.75
IIM-U	8.00	8.00

Institute of Technology, Bombay (IIT-B), had launched a fund-raising drive called ‘Give one for IIT-Bombay’ where every alumnus, part of the voluntary movement, pledged 1 per cent of their salary to IIT-B every month. IIT-B planned to use the funds to meet various needs such as infrastructure, joining bonus for faculty, green initiatives on the campus or a benevolent fund for the faculty members and staff.

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No fee hike...

IIM-A has also said it will not increase fee for its flagship management programme for the next academic year. IIM-B has also decided not to hike fee for the next academic year.

“Even though costs are biting us, we are appreciative of what the students have to pay. So, we are not going to hike the fee,” said Nanda.

The IIMs had told Business Standard last month that given the inflationary trends and drop in the number of students taking the Common Admission Test (CAT), they might not increase the fee at all or do so by a small measure.

“We consider three factors while determining the fees. Affordability for students and their parents is certainly important. We also need to consider inflation and our costs for delivering a quality programme. And we also keep in mind the salary package students are able to receive upon graduation as it is an indicator of their ability to repay loans and fulfil financial obligations incurred to pursue the programme,” IIM-B director incharge Devanath Tirupati had said. IIM-B charges ₹17 lakh for its flagship management programme.

“A fee increase is decided by the board. However, I don't think there is an appetite for a fee increase. The number of people taking the CAT has not been increasing. Even if the fee goes up, it would not be beyond any correction for inflation, which is around 8-10 per cent. We will try to be efficient and absorb as much a cost increase as we can,” said Rishiksha T Krishnan, director, IIM Indore.

JEE: LANGUAGE NO BAR

MEDIUM A large number of students to write exams in Urdu, Marathi and Gujarati

Vanita Srivastava

More than 66,000 students will appear in the Joint Entrance Examination (JEE-Mains) this year on April 6 in regional languages like Gujarati, Marathi and Urdu in Gujarat and Maharashtra.

Provision of writing in Marathi and Urdu languages in Maharashtra has been introduced for the first time this year. Gujarati was introduced last year in Gujarat as an accepted mode of examination.

Nearly 13.56 lakh students will write the JEE-Mains this year. This includes 3,62,497 female candidates. Interestingly, despite the increasing use of computers only 12% of the total registered students will write the exam via online mode on April 9, 11, 12 and 19.

The top 1.5 lakh students will be allowed to appear for the JEE (advanced) exam, the gateway for entrance to 16 IITs. The rest will take admission according to their merit in various engineering colleges including NITs, state engineering colleges and other centrally funded institutes.

This would be the second year of JEE-Mains exam, since the new system was brought into force in 2013.

According to official sources while 65,000 will write the exam in Gujarati, 795 will write in Marathi and 286 in Urdu language. While 10.78 lakh will write the paper in English, 1.83 lakh will write in Hindi.

Only those who will write the exam from any of the center in Gujarat can write the paper in Gujarati, English or Hindi. Likewise only those who have opted for a center in Maharashtra can appear in



■ Seven states have agreed to acknowledge JEE-Mains scores so far FILE PHOTO

English, Hindi, Marathi or Urdu. This is because Maharashtra has been in the past conducting exams in these languages for admission to engineering colleges.

For the first time, the answer key of the papers will this year be loaded on the website from April 25 and 27 so that students can tally their answers.

In 2013, only Gujarat had agreed to adopt the result of JEE-Mains for admission to its technical institutes. This year, three states — Madhya Pradesh, Maharashtra and Odisha — have also joined the exam system. With this the total number of states that will use the JEE-Mains results for admission to state engineering colleges has climbed to seven.

JEE-MAINS 2014 IN NUMBERS

Gujarat and Maharashtra have said 'Okay' to regional languages

13.56 lakh (nearly) students will appear for JEE-Mains this year.

12% of the total registered students will appear for the exam online

1.5 lakh best ranked students will be allowed to appear for the JEE-Advance

3,62,497 girls will appear in the exam this year

ENGLISH REMAINS THE FIRST CHOICE

65,000 will write the exam in Gujarati | **795** in Marathi | **286** in Urdu

10.78 lakh preferred English

1.83 lakh opted for Hindi

HIGHEST NUMBER OF REGISTRATION 2.45 lakh are from Maharashtra

LOWEST NUMBER OF REGISTRATION 120 from Lakshadweepa

UGC report: 1/3rd posts vacant in Central varsities

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MUMBAI: With great fanfare, the Union ministry of human resource development, in 2009, set up 16 Central universities and converted two state varsities into Central ones through an Act of Parliament. The aim was to improve the gross enrolment ratio and access to higher education in India.

But many of the Central universities seem to have failed to do either, crippled as they are with a low enrolment ratio and a huge faculty crunch.

There are 43 Central universities in India, under the purview of the HRD ministry.

An ancillary report prepared by the HRD ministry, titled 'The inclusive and qualitative expansion of higher education' states that in most central universities in the country, the student enrolment is disproportionately low, as compared with the campus area. The report states that 100% increase in intake is 'feasible' in at least 30 campuses.

Staff-shortage is a more widespread issue. According to data collected by the University Grants Commission (UGC) in January 2014, nearly one-third of the sanctioned faculty posts across 39 [of 43] central universities are lying

SET UP TO IMPROVE ACCESS TO HIGHER STUDIES, BUT CRIPPLED BY LOW ENROLMENT RATIO AND FACULTY CRUNCH

vacant – that's 5,707 vacancies out of 15,573 sanctioned posts, of which 1,176 are posts of professors, 2,044 of associate professors and 2,487 of assistant professors.

Experts say the quality of faculty members has also taken a beating and is a greater concern.

AD Sawant, former vice chancellor, University of Rajasthan, said the ministry does not consider filling vacant posts a priority. "Almost 80% of the grants received for higher education have not been utilised. There is no proper selection process; someone with no academic experience is being given the power to select people for higher posts, leading to the dearth of quality teachers," said Sawant.

The newly created Central University of Tamil Nadu and Central University of Orissa have filled only 10% of their posts, with just 28 faculty members in the former and 18 in the latter.

According to a former professor at Allahabad University, the

lack of government initiative is to blame for the condition of Central universities. "The ministry [of HRD] has bitten off more than it can chew, leading to the faculty crunch. Salaries and research facilities have taken a hit," said the professor, requesting anonymity.

Venkatesh Kumar, a professor at the Tata Institute of Social Sciences, said, "The quality of professors in the country is diminishing because of the poor quality education from the lower level. The red tape in recruitment processes, which involves many nominees and committees at Central varsities, is a major deterrent." Venkatesh helped the HRD ministry draft the Rashtriya Uchchar Shiksha Abhiyan (RUSA) scheme, which aims to the improve enrolment ratio.



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