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Indians No. 2 users of MIT-Harvard e-courses

2.5L Opt For Moocs, Next Only To Americans

Sujit John | TNN

Bangalore: Over 2.5 lakh Indians have registered for courses on edX, the massive open online course (Mooc) platform founded by Massachusetts Institute of Technology (MIT) and Harvard University in May 2012 to host online university-level courses.
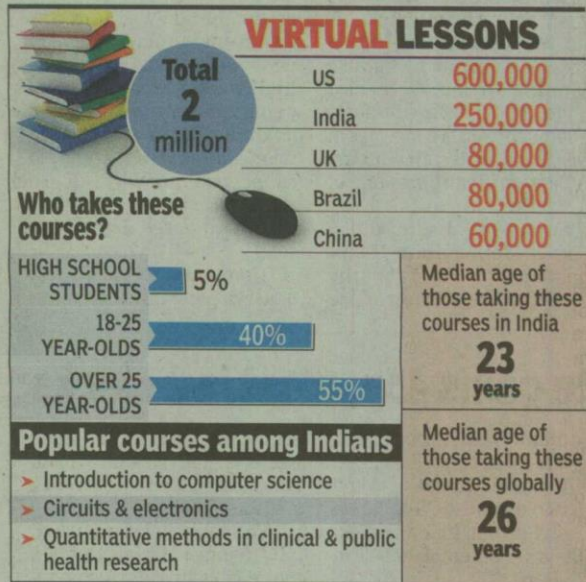
This makes Indians the second largest community, after Americans, to register for these courses, said edX president Anant Agarwal, an Indian American who grew up in Mangalore and who has been teaching the circuits & electronics course in MIT for 26 years.

The courses have been put together and are led by some of the finest professors in the world. Students require just an internet connection. The courses are free, can be normally completed within a duration of 4 weeks to 12 weeks, and those who complete them receive a certificate from the university that provides the course.

Some 2 million people from 196 countries have registered for edX courses, of which about 6 lakh are from the US, about 80,000 each from the UK and Brazil, and about 60,000 from China.

For Indians, the most popular courses have been those related to computer science, engineering, and public health. Globally and for Indians, the two most popular courses are 'Introduction to computer science', led by Harvard faculty David J Malan and Rob Bowden, and the circuits & electronics course led by Agarwal.

"Some 2.2 lakh people are currently registered for the introduction to computer science course, and some 3.6 lakh have registered for this course in the past two years. The circuits & electronics course has had a total of 2.5 lakh students since it started. About 12% of the students in both courses are from India," said Agarwal.

Indians account for about 50% of the 70,000 enrolments in Harvard's public health course. Agarwal said this strong interest from Indians was thanks to the Medical Council of India spreading the word among doctors.

edX, a not-for-profit initiative, and Coursera, a for-profit initiative by two Stanford professors, are among the biggest Moocs providers. edX now offers some 160 courses including in science, engineering, business, law, history, social sciences, and artificial intelligence. Only around 6% of those who register for these courses actually complete them and go on to receive certificates.

For this and other reasons, Moocs still has a lot of critics. Few think it can completely substitute classroom teaching. The big promise of Moocs is that it can take world-class education to those who are otherwise excluded for socioeconomic or geographic rea-

sons. But a recent University of Pennsylvania study revealed that over 80% of surveyed people taking Moocs already hold college degrees.

Agarwal is unfazed by these arguments. Moocs, he says, are better than what you get in many universities, and particularly valuable for countries like India, for students who can't get into the top schools or can't afford them. "Today's generation is also used to watching videos. And our courses give a video game-like experience. So students are very engaged. We are planning a big push in India," he said.

He also noted instances of students benefiting from these courses. "One US student who took our software-as-a-service course added that to his LinkedIn profile and received a job interview call from a company in New York the very next day. Amol Bhave, a high school student in Jabalpur, took my course in circuits & electronics. He applied to MIT soon after and got in with financial aid," Agarwal said.

VIRTUAL LESSONS

Total 2 million

US	600,000
India	250,000
UK	80,000
Brazil	80,000
China	60,000

Who takes these courses?

HIGH SCHOOL STUDENTS	5%
18-25 YEAR-OLDS	40%
OVER 25 YEAR-OLDS	55%

Median age of those taking these courses in India
23 years

Median age of those taking these courses globally
26 years

Popular courses among Indians

> Introduction to computer science
> Circuits & electronics
> Quantitative methods in clinical & public health research

DU students rate teachers; best ones to be awarded

Mallica Joshi

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NEW DELHI: The newly introduced student feedback system has already started bearing results for the Delhi University.

A list of teachers who are innovating and are making sure that they engage their pupils hasbeen drawn out based on favourable response from students.

On the other hand, a list of 40 teachers who do not take classes regularly has also been prepared from the students' feedback.

The feedback was collected from nearly 4,000 first-year students and relates only to the foundation courses.

The university now plans to hold a special ceremony for those teachers who the students have commended.

"We will hold a special function to recognise the efforts made by these teachers. The students have praised quite a few teachers and their teaching methods," said DU vice-chancellor Dinesh Singh.

"The students have given names of those teachers who

■ **The students in their feedback have also listed out around 40 teachers who do not conduct classes properly.** VIPIN KUMAR / HT

do not take classes. A sizeable number of students have complained against some teachers and we are contemplating action against them also," he added.

The university announced a student evaluation system in December last year. Students are asked for their feedback regarding teachers, infrastructure and foundation courses.

The questionnaire asks students to rate the college infrastructure, teacher attendance and list the names of teachers who motivate them and use innovative teaching methods.

Alternately, the form has a section on the foundation courses. It asks students to tell the university about the best foundation course and the improvements that can be made in the courses.

The feedback system is anonymous but the university knows the college, course and the section that they come from.

The V-C, in December, had said he had taken a leaf out of the Delhi University Teachers' Association's (DUTA) book as he thought their students' feedback for the four-year undergraduate programme was a great idea.

IIT Bombay students working on an app for AAP

Will target tech-savvy voters and try to attract volunteers and donations

MANISHA JHA
Mumbai, March 21

A group of students from IIT Bombay is bringing its technology skills to the electoral battlefield.

The students are in the process of developing data analytics tools and interactive apps for Facebook, iOS and the Android platform for the Aam Aadmi Party.

These applications are targeted at the young, social media and tech-savvy supporters in order to boost donations to the party and attract volunteers.

Data analytics will help the party identify localities with high voting participation and enable targeted campaigning.

Interactive apps

The interactive mobile platform apps will help the party make information available on all AAP candidates in Mumbai, enable users to make donations, join the volunteer programme or seek additional information on the party. "These apps, once developed, will also enable users to access new articles and the latest press releases on AAP," said 25-year-old IIT-B alumni and AAP member Siddharth Das.

Data mining

"We are also working on a database and data mining system that will help compare our candidates with others using the 2009 election data affidavit available for most candidates," added Pritesh Mittal, an energy engineering student. "It contains information on criminal cases, achievements, past promises and present ground realties."

Apart from being a social worker and an AAP member, Mittal has also bagged an offer from a high-profile invest-

> The interactive mobile platform apps will help the party to make information available on all AAP candidates in Mumbai, enable users to make donations, join the volunteer programme

ment bank. Shantanu Mandal, a 21-year-old electrical engineering student, said the Facebook app would also help fellow supporters connect and discuss political issues.

Currently, a platform is being developed to support AAP's North-West Mumbai candidate Mayank Gandhi. This will subsequently be extended to Maharashtra and the rest of the country.

Aiming to serve

Apart from innovative work, these IITians are keen to contribute to AAP's cause in other areas too.

"One day we could be simply doing photocopying work in the AAP office and on another we could be seated on the party's national co-ordination committee devising our electoral strategy," said Mittal. "But more than the nature of work it's the party's principles and ideals that drive us to keep learning and build our skills."

Less than 4% aspiring teachers pass CBSE's eligibility exam

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NEW DELHI: Less than 4 per cent of the applicants have cleared the Central Teacher Eligibility Test (CTET) conducted by the Central Board of Secondary Education, the results of which were announced on Friday.

According to official sources, only 3.39 per cent candidates passed Paper 1 and only 1.07 per cent could clear Paper 2. A total of 8.26 lakh candidates had registered for the exam. There are different eligibility conditions for both the papers.

Paper 1 qualifies candidate for teaching Classes I to V (primary stage) and Paper 2 qualifies an

ONLY 3.39% PASSED PAPER 1 AND ONLY 1.07% COULD CLEAR PAPER 2. A TOTAL OF 8.26 LAKH PEOPLE REGISTERED FOR THE EXAM

applicant to teach Classes VI to VIII (elementary stage). Completing both papers is also an option, which enables one to teach Classes I to VIII.

Last year, nearly 11 per cent had qualified while in 2012 only 1 per cent could clear the exam.

The certificate is valid for seven years but a candidate having cleared the test may appear again to improve his/her score. Eligible candidates can retake the exam as often as desired.

The CTET is used to qualify candidates to teach Classes I to VIII at central government schools (also UT schools). CTET scores are also considered by private schools as well as state government-aided schools.

The CTET was introduced in 2011 by the government to improve the quality of teaching in schools after the enactment of the right to education Act. The objective for including CTET as a minimum qualification for a person to be eligible for appointment as a teacher was to bring teacher quality in recruitment process.

TCS ranked No 1 employer in Europe

NEW DELHI: IT major Tata Consultancy Services on Friday said it has been named as the top employer in Europe for the second consecutive year by the Top Employers Institute for exceptional performance across six core human resource areas.   **PT**

Rajesh Gopakumar gets GD Birla award for 2013

HT Correspondent

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NEW DELHI: The prestigious GD Birla Award for Scientific Research for 2013 has been given to Prof Rajesh Gopakumar, a theoretical physicist at the Harish-Chandra Research Institute (HRI) in Allahabad.

"I am extremely happy because such awards and acknowledgement encourage a scientist to strive even harder for better research work in the days to come," said an elated HRI scientist while talking to HT.

Surrounded by wife Rukmani, who is herself a mathematician at the HRI and often helps him out in his work, and seven-year-old son Dhrupad, Gopakumar thanked his colleagues and the HRI for the constant support and the quality infrastructure made available to him for his research works.

He also thanked his father G Gopakumar, a retired engineer from a central government organisation now settled in Trivandrum

■ **Prof Rajesh Gopakumar.** HT PHOTO

and mother Jaishree for their guidance and encouragement.

Born on December 14, 1967, Gopakumar has been awarded for his important contributions on topics in the quantum field theory and string theory particularly at the interface of these two subjects. Gopakumar is among the leading string theorists and in the last several years his work has made India a leading centre for research in string theory.

After his undergraduate degree in physics from IIT Kanpur, he went on to do his doctoral work

at Princeton University. After a few years as research associate at Harvard University, he joined HRI in 2001.

Gopakumar has made fundamental contributions to the understanding of string theory, quantum field theory and mathematics. He is a recipient of several other awards, including BM Birla Science prize in 2004.

The G D Birla award for scientific research was instituted in 1991 by K K Birla Foundation to recognise high calibre scientific research undertaken by Indian scientists living and working in India.

The award is meant for scientists who are below the age of 50 and carries a cash prize of Rs 1.50 lakh. The selection of the award is made by a board headed by the president of the Indian National Science Academy, New Delhi. The board includes eminent scientists like Asis Datta, Anupam Varma, Goverdhan Mehta, Mustansir Barma and Suresh Rituparna.

(With inputs from K Sandeep Kumar from Allahabad)