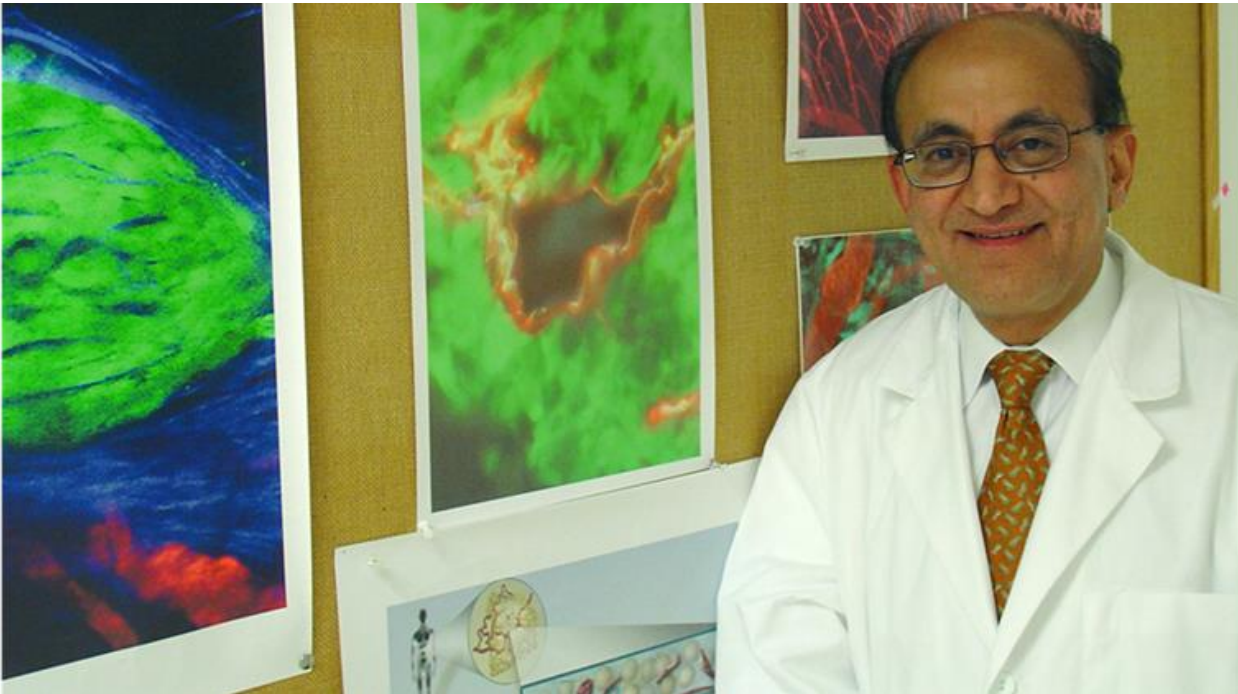


Newspaper Clips December 24, 2015

President Obama to honour IIT alumnus with America's highest science award

<http://indianexpress.com/article/india/india-news-india/president-obama-to-honour-iit-alumnus-with-americas-highest-science-award/>



Dr Rakesh

Jain has received numerous awards for his work on tumor biology, particularly research on the link between tumor blood vessels and improving the effects of chemotherapy and radiation treatment.

President [Barack Obama](#) will felicitate a 65-year-old Indian-American professor at the Harvard Medical School with the US' highest honours for achievement and leadership in advancing the fields of science and technology, the White House has said.

Dr Rakesh K Jain, an IIT-Kanpur alumnus and professor of tumor biology at Massachusetts General Hospital in the Harvard Medical School, will receive the National Medal of Science at a White House ceremony early next year. Jain is among the nine latest recipients of the National Medal of Science. Eight persons have been chosen for the latest National Medal of Technology and Innovation.

The White House yesterday announced the recipients of the National Medal of Science and National Medal of Technology and Innovation, America's highest honors for achievement and leadership in advancing the fields of science and technology.

“Science and technology are fundamental to solving some of our Nation’s biggest challenges. The knowledge produced by these Americans today will carry our country’s legacy of innovation forward and continue to help countless others around the world. Their work is a testament to American ingenuity,” Obama said.

Jain has received numerous awards for his work on tumor biology, particularly research on the link between tumor blood vessels and improving the effects of chemotherapy and radiation treatment.

He received his B.Tech degree from the IIT-Kanpur in Chemical Engineering in 1972. The National Medal of Science was created by statute in 1959 and is administered for the White House by the National Science Foundation. Awarded annually, the Medal recognises individuals who have made outstanding contributions to science and engineering.

More youngster enrolling for higher education: HRD survey

<http://indiatoday.intoday.in/education/story/hrd-survey/1/553459.html>

It is the youth who is interested higher education, reveals Human Resource Development (HRD) ministry survey. According to the survey, people of age group of 18-23 years are enrolling for higher education. PTI reports state that the Gross Enrollment Ratio (GER) in India has risen to 23.6 per cent in 2014-15 from 23 per cent a year before.

Here are the highlights of the survey:

- Mostly people from age group of 18 to 23 years are enrolling for higher education
- Gross Enrollment Ratio (GER) rose to 23.6 per cent in 2014-15 from 23 per cent in 2013-2014
- The total enrollment in Higher Education is estimated to be 33.3 million with 17.9 million boys and 15.4 million girls
- The GER for male population is 24.5 percent and for females is 22.7 percent
- The number of female teachers have come down per 100 males. All India Survey on Higher Education (AISHE) reveals that there are 64 female teachers per 100 male teachers in 2014-2015. In 2013-2014, there were 65 female teachers per 100 male teachers

HRD minister [Smriti Irani](#) who unveiled the survey report expressed her concern and asked MHRD to formulate schemes so that there are more women teaching in higher education institutions. She also expressed her willingness to make the data collection faster for these surveys.

My journey to IIT Tirupati!

<http://www.pagalguy.com/articles/my-journey-to-iit-tirupati-38216123>

IIT JEE: few consider this the toughest of all entrance exams in India. I was of the same opinion, something more than just that, in fact.

I passed my Class 10 exams with flying colours. Then came the biggest question for my life, "What to do now? Shall I take MPC or BiPC?" I had no idea. So I left it to my father. Few days later he came home, as usual from office, and said, "You are going to prepare for IIT JEE." I agreed as I didn't have any idea about which course to opt for. A few days later I joined college. My mind was blank, since none of my school friends joined with me. Life was boring. Completely new faces, and my best friend was only me. Gradually I started making friends in my class. Unexpectedly, boring college life started becoming interesting. Is this what I came to this college for? No, the main reason is to crack IIT JEE. I started preparing, and at the same time enjoying with friends. The

beginning of my preparation was quite wild but later it turned out to be interesting. The class were interesting and the professors awesome, they always clarified each and every doubt we had. I took suggestions from them regarding which book to read and prepare from.

Apart from IIT JEE, we even have to study for our board exams. We spent time for it with great concentration; the fact is the concentration I showered on my board exams is greater than the concentration I displayed for IIT JEE. The only doubt I had, 'the IIT JEE is a tough exam, how can I crack it?' Keeping this in mind, I put my efforts on weekend exams, conducted every Saturday and Monday. These weekend exams helped me a lot at the end, letting us know the topics we had to concentrate on.

Days passed like that and the countdown for the IIT JEE began. Earlier my preparation was partial and that preparation was for marks, as I didn't know the importance of IIT. Then I started preparing for myself. I started enjoying whatever I study; now what I do is not just for marks but for my future. I took suggestions from my professors. There was a stage where I thought of giving up, but my professors gave me hope, saying, "Don't think you are preparing for IIT JEE. Don't fix the boundaries, just think that you are doing it out of your interest." People don't believe it, but those words are true. *You can't achieve anything unless you do it out of your own interest.* With that attitude, I cleared the IIT JEE and joined IIT Tirupati.

IIT TIRUPATI: New place and new environment, it has people from most Indian states. Till then, I was of the opinion that newly born IITs do not have proper facilities and faculty. But to my surprise, though we are the pioneer batch, I didn't find any problem here. Hostels are very good, better than I expected. The temporary academic building is also quite good with labs and classrooms. The faculty are experienced and no one can even imagine that a newly born IIT can be this good. The first semester has completed successfully and we are going to enter the second semester after the vacation. A new beginning to start in the New Year.

Goodyear, Usher Agro and IISc co-develop green silica extraction process

http://www.business-standard.com/content/b2b-chemicals/goodyear-usher-agro-and-iisc-co-develop-green-silica-extraction-process-115122300660_1.html Usher has secured loan from Dutch firm FMO & Germany's DEG to finance the world's first commercial scale plant for green silica, which can be used in tyre production

Agro processing company Usher Agro, in collaboration with the open innovation team of [Goodyear](#) Tire and Rubber Company and the Indian Institute of Science (IISc), Bangalore, has developed an extraction process for producing 'green' precipitated silica from rice husk ash. The produced silica will be used by Goodyear to replace carbon black and traditional silica in high performance tyres.

In fact, Goodyear is reportedly in process of setting up a consumer [tyre](#) plant using silica derived from rice husk ash – an agri-waste – in China. For this, Goodyear on June 9, 2015 reached a supply agreement with Yihai Food and Oil Industry in China for silica derived from rice husk ash.

Compared to carbon black and traditional silica, [green silica](#) reduces rolling resistance. Lower rolling resistance, in turn, results in savings to the end-user as it improves a vehicle's fuel economy.

As a next step, Usher Eco will set up world's first commercial scale silica extraction plant for producing 'green' high quality precipitated silica from rice husk ash. This ash is generated by burning rice husk (outer cover of the paddy) in the boiler of a rice husk fired biomass power plant, in a closed system.

For financing the green silica plant, Usher Eco, the subsidiary of Usher Agro, has signed a transaction with FMO, the Dutch development bank, and DEG, the German development finance institution, for \$ 28 million senior secured loan (shared equally between [DEG](#) and FMO). Besides, [FMO](#) has subscribed to non-convertible debentures of the Indian rupee equivalent of \$ 7.5 million issued by [Usher Agro](#) Ltd.

In addition to silica plant, Usher Eco will use the financing to expand its rice husk based waste-to-energy facility from 16 MW to 34 MW.

This landmark transaction is a first and innovative step to towards large scale access to 'green' silica and contributes to co-generation in the energy-deprived state of Uttar Pradesh, said FMO in a press release.

Hubertus Pleister, director corporates Asia at DEG, said, "We are happy to support the vision of Usher Eco on expanding on their 'green' approach of using rice husks as a green energy supplier by also extracting silica from the ashes after which the ash can be used as fertiliser."

HTSPECIAL

As suicides rise, Kota orders tests to assess if student is fit for preparation

SCREENING CANDIDATES The assessment will give parents an idea of their wards' chances of cracking engineering, medical entrance exams

Aabshar Quazi

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KOTA: Students seeking admission to coaching institutes in Rajasthan's Kota city will have to appear for an aptitude test from the next academic session, a move spurred by growing incidents of suicides by youngsters allegedly due to performance pressure.

At least 75 students studying in different institutes in the city—about 150 km from capital Jaipur—have committed suicide in the past five years, most of them attributed to the fear of failure.

Official sources said on Wednesday that the norm was introduced by Kota district collector Ravi Kumar Surpur to give parents a fair assessment of their wards' chances of cracking the highly competitive engineering and medical entrance exams.

The district collector has instructed all institutes to have a screening test for the 2016-17 academic year with common counselling facility for parents. The institutes have three to four months to prepare the module for the test in consultation with the district administration, the sources added.

The quiet southern Rajasthan town attracted just over 10,000 students till early 2000 in seven major institutes but the last few years had seen a major transformation with about 1.25 lakh students taking admission in about 40 institutes this year.

However, just one-fourth of them manage to get admission in professional colleges, leading to high stress levels in a majority of them who come from middle or low income group families.

As the institutes started providing better facilities, their charges also rose with annual fees doubling in the last seven years, putting additional pressure on students.

Gopal Saini, a daily wager

turned shopkeeper, sold off half of his agriculture land in Alwar to support his 17-year-old son Manish's dream to become a doctor. Manish cracked the examination and got admission into the All India Institute of Medical Sciences (AIIMS) this year.

But there are many like Tara Chand, enrolled in Allen Career Institute, who apparently was not able to cope with the rigour and reportedly committed suicide earlier this year.

"I still don't know what drove him to commit suicide," said his father Sohanlal Sirvi, a farmer who took out all his savings to pay for his son's annual fee of over ₹1 lakh.

The reasons for committing suicide are many, says Yaadram Faasal, Kota's additional superintendent of police, with "failure of the students to meet high expectations of parents" being the most common. Also, living alone away from their families in a rigorous study cycle and high pressure environment also push them to take the extreme step.

An official of the Kota administration said the new system will give parents a chance to opt out and choose an alternate career option for their ward.

Allen Career Institute, Kota, Director, Naveen Maheshwari agreed, saying that the guidelines make screening test mandatory but not rejection of the students.

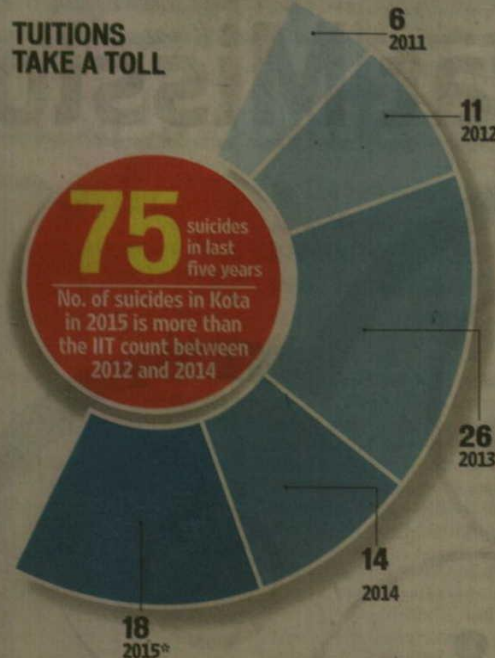
Students welcomed the move saying there was no harm in filtering students at the time of admissions through screening test since it will prevent below average and undeserving students from falling prey to the study stress of coaching.

"It is good that screening test does not result in rejection as every student should get equal opportunity to improve their educational level," said Tejaswin Jeengar a student from Haryana.

THE KOTA CONUNDRUM

18 suicides this year turned the national spotlight on this Rajasthan town, which, over the years, has come to be known as the coaching capital of India. We take a look at what makes Kota tick

TUITIONS TAKE A TOLL



EXISTING SYSTEM

A simple test before admission

NEW PROCESS (2016-17)

- Mandatory aptitude test for each student
- Counselling of parents and students on the basis of results
- Institutes to tell parents whether the student can clear IIT-JEE exam or not

STUDENT LANDSCAPE

20-22%* are girls

70-80%* are from middle class families

(There have been cases of parents mortgaging property to send their children to Kota for admission in one of its coaching centres)

85%* students come from Uttar Pradesh, Haryana, Madhya Pradesh, Chhattisgarh, Bihar, Delhi and Jharkhand

*TILL DECEMBER 23, 2015

* FIGURES ARE AN ESTIMATE

PER STUDENT EXPENDITURE

ANNUAL COACHING FEES

- ₹1,00,000-1,25,000: IIT-Advanced
- ₹50,000-60,000: IIT - Main (for central engineering colleges other than IITs)
- ₹50,000-80,000: Medical

FEES AFTER ADMISSION

- ₹90,000: IIT
- ₹70,000: National Institute of Technology Fee (NIT)
- ₹4,228: AIIMS

LIVING COST

(Duration of courses is one to two years)
₹7,500-15,000 for a student per month

COACHING MARKET

8,000-15,000

students in the decade between 1990 and 2000, the number of students has increased to 1,25,000 in 2015

1,00,000* students visit Kota every year for a short stay of one to three months for courses and mock tests

20-25% is the success rate of students getting admission into professional colleges

0% is the rejection rate for admission into Kota institutes

BUSINESS GENERATED

₹2,000 crore annually because of the coaching industry

₹130 crore annual tax paid by coaching centres

Land price had increased by five times since 2011

4-fold increase in number of coaching centres in the last 10 years

1986: Kota came into the limelight when a local student topped IIT-JEE. He was coached in the first institute of the town started by an engineer, VK Bansal

I am from a very poor family of seven. My father earns just ₹5,000 per month and had to sell half his agriculture land in Alwar to support my coaching in Kota. Fortunately, I cleared the tests

MANISH SAINI, 17, who cleared AIIMS entrance examination in 2015

Business Line ND 24/12/2015 P-19

Railways ties up with IITs for research centres

OUR BUREAU

New Delhi, December 23

Indian Railways on Tuesday signed Memorandum of Understanding with IIT Kanpur, IIT Madras and IIT Roorkee to set up Centres of Railway Research.

With IIT Kanpur, the focused areas of research are – geo-tech engineering, advanced fuel-efficient systems, alternate engine propulsion technologies, fire safety management, wireless networking systems, advanced electronics, high-speed track and rolling stock design, operational efficiency measures, cyber security of railway communication systems, material development and processing, among others. With IIT Madras, the focused research areas are: structural

health monitoring of railway infrastructure (rails, bridges, engines, wagons/coaches, electrical stations) using embedded intelligence. Areas such as energy management, intelligent transportation, computer vision and imaging technologies, advanced materials and advanced joining technologies. Other areas include non-destructing testing and evaluation, apart from disaster management.

The tie-up with IIT Roorkee will focus on civil infrastructure of high speed rail, bridges and structures, track management system, remote monitoring of railway assets, station infrastructure, engine noise analysis and management, electric drives, advance communication systems.