

# Newspaper Clips

April 17, 2011

Times of India ND 17/04/2011

P-23

## Catch a falling star

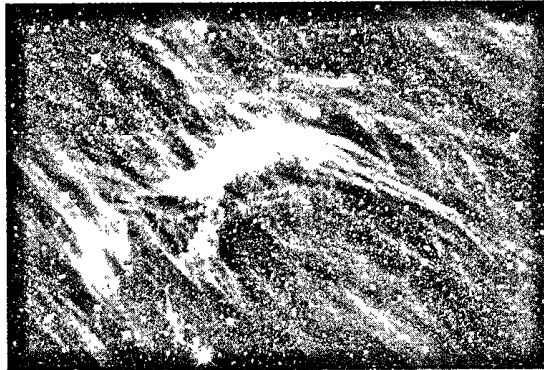
Nasa's Explorer scans cosmos, posts spectacular photos on the net

Los Angeles: National Aeronautics and Space Administration (Nasa) has released a trove of data from its sky-mapping mission, allowing scientists and anyone with access to the internet to peruse millions of galaxies, stars, asteroids and other hard-to-see objects.

Many of the targets in the celestial catalog released online this week have been previously observed, but there are significant new discoveries. The mission's finds include more than 33,000 new asteroids floating between Mars and Jupiter and 20 comets.

Nasa launched the Wide-field Infrared Survey Explorer, which carried an infrared telescope, in December 2009 to scan the cosmos in finer detail than previous missions. The spacecraft, known as WISE, mapped the sky one-and-a-half times during its 14-month mission, snapping more than two million images from its polar orbit.

The spacecraft's ability to detect heat glow helps it find dusty, cold and distant objects that are often in-



HEAVENLY SHOW: This undated image taken by Nasa's WISE telescope shows a massive star ploughing through space dust

visible to regular telescopes. The batch of images made available represents a little over half of what's been observed in the survey. The full cosmic census is scheduled for re-

lease next spring.

"The spectacular new data just released remind us that we have many new neighbours," said Pete Schultz, a space scientist at Brown

University.

University of Alabama astronomer William Keel already started mining the database for quasars - compact, bright objects powered by super-massive black holes. "If I see a galaxy with highly ionized gas clouds in its outskirts and no infrared evidence of a hidden quasar, that's a sign that the quasar has essentially shut down in the last 30,000 to 50,000 years," Keel said.

WISE ran out of coolant in October, making it unable to chill its heat-sensitive instruments and observe faraway objects. It spent the next four months seeking out near-Earth asteroids and comets that should help scientists better calculate whether any are potentially threatening. The spacecraft went into hibernation in February.

The mission, managed by Nasa's Jet Propulsion Laboratory, was hundreds of times more sensitive than its predecessor, the Infrared Astronomical Satellite, which launched in 1983 and made the first all-sky map in infrared wavelength. AP

Business Line ND 17/04/2011 P-16

## Galaxies on the Net

Data from NASA's sky-mapping telescope released

Associated Press

Los Angeles, April 16

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In this undated image released by NASA taken by the WISE telescope, shows a massive star plowing through space dust. The result is a brilliant bow shock, seen as a yellow arc. — AP

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## Why intake of salt raises your blood pressure

Scientists have found that salt intake makes it harder for the body to juggle BP regulation and temperature simultaneously. A team led by Robert Blankfield at Case Western Reserve University and Ellen Glickman at Kent State found that salt and water ingestion lowered body temperature more than just ingestion of water. Body temperature also decreased more in individuals who are salt resistant than those who are salt sensitive. "Salt sensitive individuals maintain temperature equilibrium more effectively but this also increased their BP," Blankfield says.

Business Standard ND 17/04/2011

P-3

## IIM-Ranchi to start parallel MBA courses

SWATI GARG  
Kolkata, 16 April

INDIAN Institute of Management-Ranchi (IIM-R) will begin parallel MBA courses, with a focus on specialisation in data analytics, human resource management and banking and finance management from June, 2012.

IIM-R is eighth in the now 50-year old history of Indian Institutes of Management (IIMs).

The courses, according to IIM-R director M J Xavier would serve two basic aims. First, these would aid in bringing diversity to the campus, where at present, an overwhelming majority of the students are male engineers. Secondly, it would help IIM-R establish a niche for itself as a management institute and carve out an identity within the larger IIM system.

"I have stated earlier as well, that I

am not going to try and force diversity in the campus. If the majority of the students who make the cut are male engineers, so be it. The parallel courses will deal with issues of diversity within the campus, while helping in the creation of courses that are relevant given the changing context," Xavier said.

The much coveted IIMs across the country currently offer a standard post graduate diploma in business management (PGDBM). The institutes had recently come under attack from critics who argue the system is exclusionary in nature and is largely skewed in favour of candidates with an engineering background.

Xavier, however, feels the need at present is for the IIM system to remodel itself in keeping with the demands of the times, and offer various courses which would be more inclusive of diversity, rather than trying to force di-

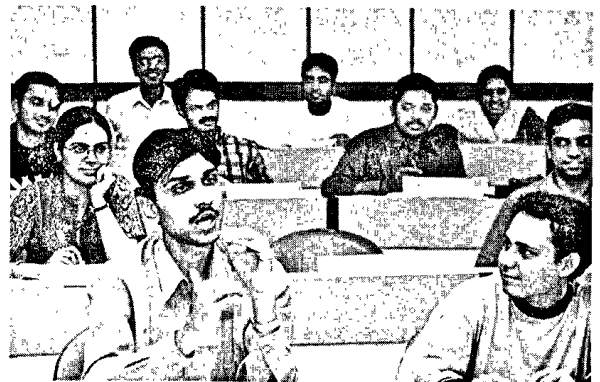
versity within the present PGDBM programme.

"In keeping with the demands for management students across the world, it is important that IIMs remodel and adapt. These courses will be a stepping stone in that direction," he explained.

Also, this would mean that at IIM-R, which is being mentored by IIM-Calcutta in its first year of operation, would not increase the student strength in the PGDBM programme beyond 60 students.

IIM-R would also implement the concept of smart classrooms, a scheme under which, at a cost of ₹60 lakh, the institute will connect IIM-Tiruchirapalli, Raipur and Rohtak.

Technologically, heightened classrooms would connect students across the four institutes giving students across IIMs the advantage of interacting with high-profile visiting faculty.



Critics have said the IIMs are exclusionary in nature and are largely skewed in favour of candidates with an engineering background. PHOTO: BLOOMBERG

Hindu ND 17/04/2011 P-13

# Narlikar declines to be part of UGC search panel

**It has been set up to identify a chairperson for the Commission**

Aarti Dhar

**NEW DELHI:** The search committee, set up by the Human Resource Development Ministry for identifying a chairperson for the University Grants Commission (UGC), has been unable to meet as one of the experts approached by the Ministry has declined the offer.

Informed sources told *The Hindu* that astrophysicist Jayant Narlikar has declined to be part of the committee due to "preoccupation." However, the three others approached by the Ministry – Madhava Menon and Goverdhan Mehta (both academicians) and Srinath Reddy, president of the Public Health Foundation of India (PHFI) – have agreed to be members of the committee which is expected to be notified soon.

The Ministry initiated the

process of looking for a chairperson after its hopes of an early establishment of the proposed National Commission for Higher Education and Research (NCHER) remained unfulfilled with the Bill awaiting Cabinet clearance.

The Bill envisages creation of NCHER, an overarching regulatory body that would subsume all existing regulatory bodies, including the UGC and the All-India Council for Technical Education (AICTE).

The charge of the UGC at present is with its Vice-Chairperson Professor Ved Prakash as per the UGC Act, 1956.

The Ministry delayed the search process after Professor Sukhadeo Thorat's term ended in February as it intended to introduce the NCHER Bill, 2011 in Parliament during the Budget session, but could not do so because of the ongoing turf war between the HRD

Ministry and the Ministry of Health and Family Welfare on the jurisdiction of medical education.

Meanwhile, the Health Ministry will soon issue an ordinance to extend the term of the Board of Governors of the Medical Council of India, which was created after the MCI general council was superseded following the arrest of its former president, Ketan Desai, on charges of corruption.

The MCI was superseded through an act of Parliament only for a year on the hope that the Ministry would be able to create a National Commission for Human Resource in Health – a regulatory body that would bring under its purview all councils related to health – by then. However, this too has not happened as the bill to this effect is yet to get a Cabinet clearance.

Saira Kurup | TNN

**B**acteria that are able to resist antibiotics are nothing new. It's in their nature to develop defence mechanisms. What's worrying scientists and governments now are supergenes, which enable bacteria to make enzymes that can help them withstand even the most powerful of antibiotics called carbapenems. Therein lies the reason for rising concern over the emergence of supergene NDM-1 or New Delhi metallo-beta-lactamase-1. But NDM-1 is not the first deadly supergene to be discovered. So what's all the fuss about?

The earliest discovery of bacteria carrying NDM-1 seems to have been in 2006. However, the supergene only really made headlines after "The Lancet Infectious Diseases" medical journal's two recent papers linking the bug to India. Mark Toleman, senior research fellow at Cardiff University and co-author of the two Lancet papers, told TOI via email: "The gene has teamed up with several other genes since it first emerged. We now know that some of the isolates found in New Delhi in 2006 barely give clinical resistance and are difficult to detect, which is probably one of the reasons why the Indian study that ran from 2004-2007 did not detect them. Another likely reason is that at that time they were in low prevalence."

Toleman and his co-authors have identified the lack of basic hygiene and unregulated use of antibiotics in India as the main reasons for the emergence of the supergene. In the April 2011 Lancet paper, the scientists claimed the supergene had been detected in samples of drinking water and seepage water collected in Delhi. This implied that NDM-1 was no longer merely a hospital-borne infection, as reported earlier. Toleman says, "The detection was really by three methods—one uses a radio-actively labelled probe and looks for a sequence of DNA that is identical to it, this method is very sensitive. The other method is called PCR. This method basically can detect a needle in a haystack and then



Despite the patriotic arguments, Indian experts agree that it is important to focus on India's unsafe drinking water which is contaminated with sewage in many parts of the country. There's also a need for a document on an antibiotics policy

copy the needle so many times that the haystack of straw turns into a haystack of needles. We then sequenced the DNA that was amplified and it had an identical sequence to NDM-1. We also looked inside the bacteria to find where the genes actually were. A combination of these three methods gives a very powerful proof of presence."

But few in India seem convinced. Dr Chand Wattal, chairperson of the department of microbiology at Delhi's Gangaram Hospital, insists that NDM-1 is not out on the streets. "It's a hospital-borne infection, not water-borne. It's an infection that can be acquired in ICUs by high-risk patients."

Indian experts also object to the alleged link between NDM-1's prevalence and antibiotics use in India. "You have to read between the lines. Toleman says he's worried about the poor being exposed to NDM-1 in India. But how many of our poor can afford carbapenem injections?" asks Wattal.

P N Bhargava, founder and former director of Hyderabad's Centre for Cellular and Molecular Biology, agrees. "Over 80% of our population cannot afford antibiotics. You need a certain density of people using modern antibiotics for a superbug to emerge," he says.

Toleman concedes that "we don't know and cannot say (much about NDM-1's origin)". In an admission that Indians would probably please Indians, he adds that "it is possible it was brought to India from another country."

Both Bhargava and Wattal question the researchers' failure to mention that NDM-1 is not the first supergene to be discovered. "The MRSA is the most prominent. In the US, there are over 20,000 deaths every year on account of MRSA infections acquired in hospitals. But they have not named MRSA—Methicillin-resistant *Staphylococcus aureus*—for any country or city," points out Bhargava. He says he agrees with Indian Council for Medical Research director-general V M Katoch in that the intent behind the NDM-1 name is "mischievous".

Despite the patriotic arguments, however, even Bhargava agrees that it is important to focus on India's unsafe drinking water. "We should take that part seriously. Drinking water is contaminated with sewage in many parts of the country. There's also a need for a document on an antibiotics policy."

Prof Rajendra Prasad of the School of Life Sciences, JNU, believes that the best way forward is for India to conduct its own studies. "We have no backup data. We have nothing to throw back at them. We should take the report seriously and learn lessons rather than just react."

Perhaps that might be in line with the behaviour of the bacteria we now face? In an editorial in "Expert Review of Anti-infective Therapy" in February, researchers Tim Walsh and Toleman wrote: "It would appear that the emergence of NDM-1-positive bacteria is as much a response of human behaviour as it is the bacteria becoming 'smarter'."

# WHAT THE # @ % & !

WHY IS INDIA SO BUGGED ABOUT SUPERGENE NEW DELHI METALLO-1 ?



## GOING GLOBAL

**December 2009** The bug is named for New Delhi after a Swedish national contracts it in India. There is little data

from India to suggest how widespread it is.

**May 2010** A man of Indian origin in Coventry in the UK, who recently had dialysis in India is found to be carrying the bug

**June 2010** There are three

reported cases of superbug infection. All three had



The super bug seen through the microscope

received recent medical care in India

**July 2010** A medical team reports a cluster of three cases of superbug incidence from the intensive care unit of a hospital in Chennai

**August 2010** Canada has its

first confirmed case of the superbug in Ontario

**September 2010** Japan detects its first superbug case in a man in his 50s who has just returned from vacation in India and brief hospitalization while on holiday



# Loaded lessons

From providing personal home tuitions to difficult wards to training bright children to crack competitive examinations like IIT-JEE, the coaching industry is emerging as an alternative education system

Jyotsna Bhatnagar

**T**AKE A walk down any locality of a city, town or even village. Chances are you would encounter at least a couple of banners, bunting, name plates or hoardings or simple wall graffiti advertising some coaching class or the other. Better still, just shake your daily newspaper—at least, a few colourful inserts of some local tuition classes will float down and fall on your lap.

Fifteen to 20 years ago, it was considered a taboo, used discreetly and surreptitiously by both parents and students in need of remedial or poor academic abilities. Today the tuition industry is a force to reckon with and a status symbol to brag about among school-going kids. In terms of size, the industry may well be as big as ₹10,000 crore (according to a survey done by ASSOCHAM, a leading industry body) providing employment to lakhs. Most of the tuition centres fall in the unorganised sector, making exact quantification impossible.

Come, too, are the days when the tuition teacher was an ill-paid school master with his trademark *jhola*, who provided personal home tuition to difficult wards of affluent parents or taught a bunch of kids in some dingy room. Today national names such as Resonance, Brilliant, Agarwal and Vibrant with their swank, air-conditioned classrooms and plush corporate offices signify the arrival of the tuition industry, not only as an alternative education system, but also, as a lucrative career option.

That's not surprising, considering that with ever increasing competition between school kids to bag seats in institutions of excellence and declining standards of teaching in most schools, the quantum of money anxious parents are willing to shell out to supplement their children's academic abilities has grown exponentially, too (see box).

Says Dhruv Bhatnagar, a Class 12 student of DPS Gandhinagar, "I think it's peer pressure that gets to all of us. Seeing our peers go for numerous tuition classes, most of us feel unsure of our own abilities to do well without tuitions. And I feel that more than us, our parents feel comfortable sending us for tuition classes as it gives them a sense of security about our academic performance. In that sense, tuition classes provide academic insurance to both parents and students. And in the eventuality of non-performance, the tutor becomes the fall guy."

Academicians and educationists are divided in their opinion on the virtues and vices of tuition classes. Renowned academic and economist B.K. Dholakia, who after a long stint as director of the Indian Institute of Management, Ahmedabad now heads the Adani Institute of Infrastructure Management feels, "The burgeoning private tuition centres is symptomatic of the malaise afflicting our education system. The quality of primary and secondary education in schools has gone down drastically in recent years. And it is this decline in quality of teaching in schools which is leading to proliferation of private tuition classes." Dholakia says private coaching classes are the equivalent of "administering a steroid in the academic system to suppress the my-

riad diseases plaguing it."

Concurs Arvind Sahay, a senior professor with IMA, himself a father of two school-going kids. "Private tuitions are good as long as they are able to address students' needs, supplement their requirements and enhance their understanding. The implication, however, is that if the proportion of this value-add keeps increasing, it undermines the basis of school education apart from being a waste of time and money." Adds Himanshu Rai, a professor with IIM Lucknow and convener of the prestigious CAT examination, "Private tuition is bad if it is done as a substitute for school education and also increases students' dependence on outside help."

The pros and cons of private tuition notwithstanding, the tuition industry is raking in the moolah like never before. The corporatisation of this industry is evident not only from the opulent buildings and offices many biggies in the game have, but also their turnovers, ad-spends and the salaries they pay. Though it may sound unbelievable to supercilious management grads from top-notch schools like the IIMs, good tutors, too, get seven figure monthly salaries and pay packets upwards of ₹1 crore per annum. Pankaj Agarwal, an IITian from IIT Kanpur, who started his own tuition academy—Chemistry classes for IIT-JEE by Pankaj Agarwal—in Kanpur says, "Since it is the quality of tuition that we provide that builds our reputation in the market, we pay handsome salaries to our tutors."

Agarwal has four full-time tutors working for his academy, all IITians like himself who preferred careers in the tuition industry instead of following the conventional road to riches most taken by IITians—cushy jobs

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abroad. The academy, which has a yearly student strength of 4,000, most of them from lower middle-class families in and around Kanpur aspiring to get into the prestigious engineering colleges of the country charges ₹15,000-20,000 annual fee and has a success rate of 120, which means around 200 of his students make it to premier engineering colleges each year. "Unlike the bigger players who charge around three times the fees or even more, we keep our fees comparatively low keeping in mind the economic background of our students. We make up for the loss of revenue by taking in larger number of students. We operate on the low fee, high volume model," Agarwal elucidates.

But what made Agarwal choose tutoring as a livelihood, giving up an eight-year-old high-paying consultancy job 15 years ago? "Both my parents have been professors so I guess I got the passion for teaching from them," he confesses. Today, Agarwal's tuition academy is among the top 10-12 players

in Uttar Pradesh.

However, the biggest names in the fast-growing tuition arena have sprung from Kota and Delhi. And of these two cities, Kota, in particular, is the undisputed tuition heartland with special expertise in coaching for IIT-JEE entrance examinations. Says R.K. Varma, owner of Resonance, which is emerging as one of the leading brands in the coaching business, "Prior to launching my own tuition brand, I worked eight years with one of the leading names in coaching—Bansala."

Like Agarwal, Varma, too, is an IITian, having earned his B Tech from IIT Chennai

**UNLIKE IN THE PAST, THE TUITION INDUSTRY IS NOW QUITE ORGANISED AND PROFESSIONALLY-RUN IN DIRECT RESPONSE TO MARKET FORCES. THE INDUSTRY IS MORE STRATIFIED NOW WHERE THE TOP ECHELONS CHARGE A PACKET, BUT PROVIDE VALUE FOR MONEY**

way back in 1994. "I initially started taking tuition to support myself financially and never planned to take it up as a full-time career." It was only later that he got bitten by the teaching bug and actually started enjoying "the responsiveness of students, the sense of achievement and satisfaction of creation of someone's career path. Furthermore, I found it challenging to handle young students and make a subject like physics as enjoyable for them."

Today, even though Resonance is decade old with a pan-India footprint straddling major cities including Jaipur, Bhopal, Lucknow, Udaipur, Bhubaneswar, Delhi, Kolkata, Mumbai, Bengaluru and Ahmedabad, Varma still puts in over eight hours of teaching. "I take four classes a day, each of an hour-and-a-half long duration." But what's the USP that the owner of this ₹186-crore brand brings to the table that others don't? "In my academy, students and faculty are given paramount importance. Satisfaction of students is our sole endeavour and therefore, as far as possible, we try and retain the same teachers as this provides a stable system as students are not subjected to new teachers constantly."

And since good tutors are crucial for the success of any coaching institute, Varma head-hunts for faculty directly from IITs and other premier engineering colleges and trains them as per his specifications. Of the 300 faculty members teaching at Resonance, an impressive 75 are from IITs and Varma claims an attrition rate of a minuscule 6%. "That's because we look after the faculty well—their remuneration is attractive and we look after them like family." Industry observers reveal that an average good tutor working with any of the big tuition academies gets a pay packet of ₹10-15 lakh a month.

Over one lakh students have taken coaching from Resonance since its inception ten years ago. And unlike several coaching academies which prefer to subject special list or specialists in cracking a particular exam, Resonance provides tuition to 18,000 children annually from Class 7 to 12, training them to

crack competitive exams as diverse as the NTSE, Olympiads and IIT-JEE. And this year it has introduced AIEEE and pre-medical entrance exams as well. And even with fees pegged at a steep ₹75,000 per student per annum per course, Resonance has no dearth of anxious students wanting to get enrolled.

Interestingly, the institute conducts its own entrance exam as do many others to sift out appropriately bright candidates from among the thousands queuing up with dreams of making it to the top academic institutes of the country.

Encashing in on the growing aspirations and cut-throat competition among students and parents, Resonance's full page ad in mainstream national dailies make tall claims. From "educating for a better tomorrow" to "a decision for life," its mission statement is "now any dream can become a reality without us." Varma admits that in a field, which is becoming increasingly cut-throat, he has marked an ad spend of 5-6% of the turnover.

The mushrooming of national brands is already threatening the survival of smaller players. Says Parth J Tank who runs mathematics classes in Ahmedabad, "Of late, several of the big Kota brands have been opening centres in Ahmedabad as well, the latest entrant being Resonance. With their deep pockets, their advertising campaigns and their ability to attract boys by high salaries, they will provide stiff competition to us."

Avers Rakesh Bothra, who runs Bothra Classes, a brand of successful tuition classes for IIT-JEE preparation, "The Gujarat market is not so big and good tutors are hard to find and retain. There are already 30-40 players in the local market itself and the entry of a really big national player is bound to disrupt the equilibrium."

Observes Sahay, "Unlike in the past, the tuition industry is quite organised and professionally-run now in direct response to market forces. I also feel the industry is more stratified now where the top echelons charge a packet, but provide value for money. The small guys may charge less and may or may not provide satisfaction."

Bothra and Parth Tank both feel the pressure of expectation is one of the major problems of the industry. "Sometimes it is difficult to explain to aggrieved parents why their ward has not been able to secure the same grades as another kid. Parents should realise that children have different levels of understanding and different skill sets. We cannot give 100% assurance on grades and performance." Quips Dholakia, "In the good old days, parents used to fulfil the need for supplementing education. Today, whether it is on account of paucity of time or lack of knowledge, parents are comfortable outsourcing their task to private tutors who also become the favourite punching bag in case expectations are not fulfilled."

Like lot of it, the tuition industry is hereto stay As Sachin Dhedia, known for his widely popular commerce classes in Ahmedabad under the brand name SGA puts it, "The business of tuition is so much better than a teaching job with self-financed and government schools, which offer pathetic salaries and are known for rampant exploitation. Running tuition classes provides many with a viable and dignified livelihood."

## EXPENSIVE TUTORIALS

A study conducted by the National Sample Survey Organisation in 2007-08 reveals the huge expenditure families incur on private tuitions for their children.

According to the survey, private coaching constitutes a significantly large portion of the expense students incur in education and it is sometimes even higher than school fees.

In West Bengal, private coaching constitutes the highest proportion of education expenditure—40% when the total amount spent on education is averaged across all students irrespective of whether they take private coaching or not. In urban West Bengal, the spending on private coaching is as high as 48% of the education expenses. Other states that spend a significant share on private tutoring are Bihar (21%), Orissa (20%), Gujarat (20%), Maharashtra (16%) and Jharkhand (15%).

Interestingly, in Bihar, Orissa, rural students spend a much larger share on private tuitions than their urban counterparts—24% in rural areas against 18% in urban Bihar and 28% in rural Orissa against 16% in urban areas. The states accounting for the smallest proportion on private coaching are Andhra Pradesh with 3% followed by Tamil Nadu, Rajasthan and Himachal Pradesh with 4% each.

As per the study, if the average amount spent on private coaching per year is calculated taking into account only those students who take private tuitions, then Gujarat has the highest spending of ₹3,318. Maharashtra follows with ₹3,273. Karnataka comes next with ₹2,604 while Delhi spends ₹2,593.