Hyderabad: Sixty-one percent of high school students suffer from tension headaches due to academic pressures and emotional stress according to the Indian Academy of Neurology.

In Hyderabad, neurologists say that they have been seeing a lot of children from Classes 8 to 10 with complaints of headaches that is caused by academic pressure.

The increasing number of Class 8 students enrolling for the IIT coaching courses is said to be one of the reasons. Dr Jaydip R. Chaudhuri, neurophysician at Yashoda Hospital, says, “The burden of extra coaching classes is a pressure point for some children.

Kids with a leaning towards learning are receptive, but children who are pushed into it by their parents get stressed and develop headaches. These are nothing but tension headaches."

A parent visited a neurologist with their son complaining that he suffers sleepless nights and often stands in the balcony in the dead of the night. When the neurologist questioned him he confessed that he got a headache the minute he picked up a book. The doctors had to counsel
the parents and child saying he needed relief from stress.

Dr S. Ramakrishna, general physician at Global Hospitals, said that too much dependence on paracetamol, anacin and other medicines leads to analgesic rebound.

He said, “Too much intake prevents these medicines to work. Students must avoid self medication as it is one of the major reasons for headaches. The best method is to find out the triggers for headache and work towards re-solving it.”

Yoga and meditation are considered to be the best relief methods. Even allopathic doctors recommend these methods for a long lasting result. Dr Chaudhri says that increasing stress levels and headaches are seen in teenage children in urban areas.
IIT-B part of venture to bring academia and industry closer

HT Correspondent

Mumbai: The Indian Institute of Bombay (IIT B) and Washington University in St Louis (WUSTL) have launched the IIT B-WUSTL-Corporate Network, which intends to bring together academia and industry, in order to encourage research in areas relevant to industry, government and society. It also aims to train the next generation of employees and leaders.

The network was launched on the first day of the IIT B-Washington University Corporate Leaders Conclave held in St Louis, US, on October 19 and 20.

“Networks of thoughtful, innovative scientists and professionals like this corporate alliance are the foundation for this collaborative, global approach,” said Mark S Wrighton, chancellor, WUSTL.

Top leaders from IIT B and WUSTL and several other major international corporations participated in the conclave, aimed at strengthening the US-India connection around innovation and education.

A highlight of the conclave was a talk by Nirupama Rao, Indian ambassador to the US, on ‘India and US Relations’.

“This conclave is a unique platform where distinguished leaders from academia and industry came together to not just brain-storm on issues of larger interest but also chart out the future course of action,” said Devang Khakhar, director, IIT-B.

This meeting followed the Corporate Leaders Conclave that was held in Mumbai in March.

Through the McDonnell Academy Global Energy and Environment Partnership, faculty from the two institutions have collaborated for more than 25 projects.
An app to ace GATE

S.Dipak Ragav

GATE Encyclopedia is a free app available for download on the Android platform. The app is a very handy tool for GATE aspirants.

It has a simple interface that is easy to navigate. The home page of the app has four key options: General Information, Pre-Examination Related Information, Examination-Related information and Post-Exam Related Information.

**General Information**

The general information contains details about GATE, the cut-offs, colleges that one can apply, details on PSU recruitment and other useful information including preparation tips.

**Pre-Exam Related Information**

This section contains details about various important dates, eligibility and procedure to apply for the test.

**Exam-Related Information**

This is the most valuable section of the app. It contains the syllabus, marking scheme and most importantly, the option to download old question papers with solutions. This section also contains quick-tips to ace the exam, apart from listing prescribed books for specific subjects.

S.Dipak Ragav


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Data mining has a great scope

Students of AITS, Hyderabad at the seminar on Data Mining—Photo: by arrangement

Annamacharya Institute of Technology and Sciences Hyderabad, Department of Computer Science and Engineering organised national seminar on “Data Mining Tools and Usages” under the AICTE seminar grant scheme.

The seminar focused on practical orientation of three tools - Informatica, Weka and MSBI. The speakers made the students aware of the different uses of Data mining, and how it is used in future predictions like the weather reports, share market status. They also laid emphasis on how Data mining helps in enabling businesses to make proactive and knowledge driven decisions. The seminar was attended by 250 participants from various Institutes.

The chief guest Gurupreeth Singh, Associate Director, DE Shaw and Co focused on the present job market and said industry is looking for industry-ready candidates and those willing to change their attitude and think positively. Prof. Vikram Pudi, IIT-Hyderabad spoke about the versatility of Computer Science Engineering subject. He said data mining's application was seen in Civil Supplies and Stock Market Analysis and it provides scope for research. Executive Director C. Abhishek Reddy and resource expert Jigyasu from Cognizant Technologies shared their views.


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As poll nears, govt rushes to appoint VCs
Uses Ad Route For Applications

New Delhi: With general elections only a few months away, the human resource development (HRD) ministry has devised a unique method to fast-track appointment of vice-chancellors for 12 central universities who will demit office in March. The ministry has decided to revert to the abandoned system of common advertisement seeking applications.

In 2008, 15 vice-chancellors of newly-created central universities were appointed through an advertisement. In an unprecedented move by then HRD minister Arjun Singh, one search-cum-selection committee was asked to shortlist a panel of three names for each university. Appointment letters were issued a day before the Lok Sabha election schedule was announced.

The ministry is now involved in repeating its earlier act. “Initially there was a plan to have one search committee but then it was pointed out that each of the new central universities have their own statutes and it would be difficult, or rather illegal, to get new vice-chancellors for them through one search committee,” a source said. Then the idea of advertisement was mooted.

After 2009, advertisement as a method was abandoned when vice-chancellors for Delhi University, Jawaharlal Nehru University (JNU), and other central universities were appointed. It has been brought back,” the source said.

The advertisement, which will appear in a few days, will ask candidates to apply online and give their preference of universities they would like to be considered for. “One candidate can give preference for four-five universities. It will help the ministry shorten the process. Otherwise, we would have given a list of 100-150 top academicians from our pool for consideration as well as asked eminent educationists to suggest names. It is a cumbersome process and takes months. With online application, we’ll be able to complete the process in record time,” a ministry official said.

Vice-chancellors will be appointed to central universities of Jharkhand, Bihar, Odisha, Kerala, Tamil Nadu, Gujarat, Punjab, Rajasthan and Srinagar. Three state universities which were upgraded to central university in 2009 — Hari Singh Gour University, Madhya Pradesh; Hemvati Nandan Bahuguna Garhwal University, Uttarakhand; and Guru Ghasidas University, Chhattisgarh — will also get new vice-chancellors. The central universities of Haryana, Himachal Pradesh and Karnataka are not part of the exercise as they got new vice-chancellors after previous ones demitted office for one reason or the other.
Tech summit

With France being one of the largest investors in India with nearly 16 billion USD investment-stock by French companies as a backdrop, the India-France Technology Summit, scheduled to be held in New Delhi (October 23-24), will see the participation of around 500 delegates from both countries. The summit — organised by the French Embassy in India, the Department of Science and Technology (DST) and the Confederation of Indian Industry (CII) — will aim to work towards a 'technological partnership' in four key areas including cities, energy and climate; biotechnology, agrifood and health; aerospace and aeronautics; chemicals and materials.

According to Arnaud Mentre, first counsellor, head of Press section, French Embassy in India, "With the summit, France and India will develop an 'eco-system' bringing together all French and Indian stakeholders in research, development, innovation and higher education, building on the success of the Indo-French Centre for promotion of advance research, CSIR-IITRAM and the 11 active Indo-French joint laboratories (water, chemistry, mathematics and life sciences)."

The summit will further see the launch of a new joint programme of research on health technologies and the creation of three joint research structures in the field of life sciences. An India Fund will also be created at Institut des Hautes Etudes Scientifiques (IHES) in France, based on the tradition of collaboration between French and Indian mathematicians.

Paulo Gondaves, research associate at INRIA, said that 12 of their representatives will be participating in the summit. The large-scale event, he added, is likely to encourage scientific collaborations in the academia and help find industrial partners in India.

France and India, added Mentre, will also share the objective to build an ambitious education strategy to encourage greater student exchanges between both countries, including twinning of higher education institutions, mutual recognition of degrees, research collaborations and training of teachers.

The summit was announced by Francois Hollande, President of France and Manmohan Singh, Prime Minister of India, during Hollande's state visit to India in February 2013.

Engineering college

Ecole Centrale Paris is launching an engineering college in India — Mahindra Ecole Centrale (MBC) — in collaboration with the Mahindra Group. Herve Biauser, director, Ecole Centrale Paris, said the five-year programme will have an interdisciplinary approach with a blend of humanities, social sciences, and philosophy, thus, helping students to adapt to global engineering challenges. The college will open in 2014 or latest 2015.
‘Mars is part of India’s space vision’

Madhumathi D. S.

K. Radhakrishnan: ‘For the common man or student, it is a matter of pride that our country can do such a complex mission.’ The Mars Orbiter undergoing checks at the ISRO Satellite Centre, Bangalore.

In a few days from now, India may take its first and longest planetary leap to circle and peer at Mars, and join a premier club habited only by Russia, the U.S. and Europe. K. Radhakrishnan, chairman of the Indian Space Research Organisation (ISRO), highlights the significance of the Mars Orbiter Mission and the trials of its short conception in an interview with The Hindu.

Does India need a Mars mission at all? At Rs. 450 crore, it has been criticised by some as a wasteful, rushed, "me-too" venture. Your predecessor G. Madhavan Nair has faulted it for using the smaller PSLV launcher, for the scope of its experiments and even for the orbit around Mars, among others.

The Moon, Mars and the Sun were part of our country’s long-term space vision as laid out by the Advisory Committee on Space Sciences. Scientifically and technologically, we cannot afford to miss such missions. We have a three-pronged space programme, of satellites, launch vehicles and scientific and planetary explorations in that order, all of which are equally important. Like the fingers on your hand, you need them all.

If you look at the overall priorities and expenditure of the Indian space programme, our thrust areas of societal applications through communication, remote-sensing and navigation satellites have all been given due consideration.

The Mars Orbiter Mission is part of [the third priority of] scientific and planetary exploration, along with Chandrayaan, Astrosat, etc.

In the overall ISRO annual budget, 55 per cent is for satellites; 35 per cent is for launch vehicle development; 7-8 per cent goes into scientific and planetary exploration. The Mars mission is part of science and planetary exploration, along with Chandrayaan, Astrosat, etc. The 7 per cent is for enriching our knowledge about the Solar System. Such scientific missions pose very tough challenges to technologists. Some of the outcomes, for example the in-built autonomy we are providing in this spacecraft, can become a reality as a product or system and be used in satellites to improve their efficiency.

So they percolate to application, which is our main objective. It could be something like forecasting cyclones. There is always relevance for a mission such as this.

Cost-wise, how does the Indian mission compare with others?
One has to look at the overall context of benefits. In a national context ISRO’s budget is 0.34 per cent of the overall national budget. Internationally too, it’s a small budget. As Mars missions go, this is a low-cost one. Probably the others would be five times costlier because of the higher engineering costs outside India.

**Why did you not wait and launch it after the bigger GSLV rocket was ready?**

Whatever instruments were possible in the two years we had have been accommodated. The GSLV would have been an advantage in the initial phase, otherwise it was not an important item. The PSLV-XL has proven reliability and will do the job.

**What should the Mars outing mean for the country, the scientist, youth and the commoner?**

Any mission to Mars has numerous complexities and we at ISRO are doing it for the first time. If we look at the history of older missions of the U.S. or Russia, the success rate has gone up but is still around 40 per cent because of early failures.

For a technologist this is a challenge; for a scientist an opportunity to learn about Mars, which is an object of global interest. For the common man or student, it is a matter of pride that our country can do such a complex mission.

85 per cent of the mission objectives are achieved if we are able to orbit the spacecraft around Mars. Starting with 30 ideas, we will be doing five scientific experiments. The methane sensor is important; the thermal infra-red sensor traces the methane origin. Two more instruments will understand the escape processes of hydrogen/deuterium; and a Mars Colour Camera to get information about that surface.

**What were ISRO’s main challenges?**

All aspects of the mission have been daunting — from the time available to the new technologies and improvements we made for propulsion, navigation, tackling the 40-minute communication delay from Mars, readying the ground segment and meeting the critical timing of November 30. That is the D-day after the launch; by then it must leave the Earth’s sphere of influence. If you miss this opportunity you miss it for another 26 months.

**Could you elaborate how were they met?**

If you compare this mission with the Chandrayaan-1 which we did in 2008-09, there are several commonalities, but there are new challenges here. Both have the PSLV rocket and an elliptical orbit for the spacecraft. In this case you have what we call the ‘argument of perigee’ of about 270 degrees which requires a longer flight and a different trajectory. It is to use minimum energy or fuel to transfer it from an Earth orbit to a Martian orbit. That is also why we need the two ship-borne terminals.

On the ground station we enhanced a 2 KW power system in the 32-metre antenna in our Deep Space Network to 20 KW. We introduced a new system for precise ranging of the orbiter.

The orbiter was built to bear totally different temperatures and do many tasks by itself. Mars is some 400 million km away and the mission will have a communication delay of 20 minutes each way with Earth. Rather than send a chain of commands from here to check its health and to correct a problem, we stored them in the system itself.

We can still trigger them. During the 300 days of its transit, if the spacecraft develops a serious problem, it has to be put into a safe mode so that the ground controllers can set it right. The spacecraft propulsion system must be put into sleep during the journey and reactivated after 300 days.

We made new navigation software to know the exact position during the trans-Mars injection and also estimate the influence of other planets and Sun.

**What is the nature of support that NASA is providing?**

The spacecraft must be continuously tracked and must be visible at all times. We largely use our own ground station at Byalalu near Bangalore. For some phases of the mission, until the spacecraft is put into the Martian orbit, we are taking the support of NASA’s Jet Propulsion Lab’s Deep Space Network and its three international ground stations.

**Over the 300-day travel, what contingency or safety mechanisms have been provided?**

Contingency plans are part of all our satellite missions and they have to be much more elaborate than those in a planetary mission. Plans B, C, D, E and F are all documented, tested and kept handy. Everyone on the job knows what to do if something does not go right.

**What after Mars?**

For now it has been the Moon, Mars and the Sun on our plan. Scientists at our Physical Research Laboratory are looking at the Universe itself. For the next mission, we should look at larger scientific objectives with more partners but that depends on how we progress on this mission. There is the all-Indian Chandrayaan-2 with a lander and a rover and
launch on the GSLV, hopefully by 2016.

**Are you looking at joint missions?**

Joint missions hold a lot of potential. We have excellent relationships with several space agencies. When NASA’s Chairman visited ISRO recently we spoke of possible asteroid studies but that is a distant dream. When we have some capabilities there will be people wanting to join us. We work with the strengths of different teams, as SARAL and Megha-Tropiques have taught us.

In the immediate future, we will work [with NASA] to develop a complex satellite with dual frequency radar systems which is planned for 2019-20. The two teams are writing the project reports together — the S-band radar by ISRO and the L-band radar by NASA/JPL. The satellite will be built and launched by ISRO.

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Meet scientist who proved Einstein’s mathematics wrong

WASHINGTON: A scientist from US was one of the very few people on Earth who could say that he corrected Albert Einstein’s maths and got him to admit as much.

“Therefore, your transformation equation is correct, mine wrong,” wrote Einstein in a candid letter to Herbert Salzer in 1938, admitting that his number crunching didn’t measure up to that of the 23-year-old Crown Heights native.

That letter, the equivalent of Mozart praising a young pianist along with another Einstein wrote Salzer are up for auction on November 7 at Guernsey’s Auction House on the Upper East Side and could fetch close to $400,000.

While working on his thesis for a master’s degree in maths and applied sciences at Columbia University, Salzer wrote Einstein about an error in his distant parallelism field theory. Einstein wrote back, “I don’t have my earlier work available... But it sure seems that I have made the same mistake there.” Einstein signed that letter; ‘With the highest esteem’.

“I had written to him questioning a point about the first approximation equation,” Salzer once wrote.
Professor fired for 'poor teaching' in Peking university

AFP

China's prestigious Peking University has defended its controversial weekend sacking of an outspoken pro-democracy professor by saying Xia Yeliang had earned poor marks for teaching.

The dismissal of Xia on Friday generated international attention and criticism in domestic social media, and came as China's new leadership has taken measures to silence high-profile critics.

Xia, an economist, told AFP he believed he was dismissed because of his political views, particularly his support for Charter 08, a document signed by hundreds of intellectuals, dissidents and others urging pluralist democracy in China.

But Peking University said in a statement on its microblog account on Saturday that Xia was the school's worst-ranked teacher and the source of 340 student complaints since 2006.

"Xia Yeliang's teaching evaluation scores were for many years in a row the lowest of the entire university," the statement said.

It added that a university committee had voted in October 2012 to let him go but gave him one year to improve.

In the follow-up meeting this month it said 30 people voted to end Xia's contract, three people opposed, one abstained, and three people did not attend.

Users of China's popular microblog service Sina Weibo expressed doubt about the motives for sacking Xia.

One commentator using the name Leidaju claimed to have taken a course with Xia and said: "Although he sometimes held strong views, in general he was a good teacher."

Another user with the name Lengyu1918 said: "Only Professor Xia Yeliang is brave enough to be a backbone for the Chinese people, whereas a lot of other people are just protecting themselves."

The ruling Communist Party takes a hard line against dissenters who might challenge its power. AFP


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Today's Paper » FEATURES » EDUCATION PLUS

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U.S. varsities to meet students in India

A group of admissions counsellors representing a number of accredited universities from across the United States is on a visit to India, to meet with and speak to students across the country.

This group is partaking in a series of events in New Delhi, Mumbai, Ahmedabad, Bangalore, Chennai and Hyderabad.

All of the events are free and open to the public.

These are organised by Linden Educational Services, a Washington DC area organisation dedicated to helping students from around the world connect with prestigious U.S. universities.

For the past 20 years Linden has been visiting India and helping students pursue their goals in higher education. Linden works closely with EducationUSA to ensure events of the highest caliber.

This October, university admissions officers visiting India represent the gamut of what is available in the U.S., from large, public universities to small, private colleges.

The range of academic programmes at these schools is extensive, and while most schools offer Business, Engineering, Information Technology, Biology and Health-related Science programs, students will also find schools offering degrees in fine arts and liberal arts.

To learn more about the participating universities and to register for the fair, please visit us online at www.lindentours.com or https://www.facebook.com/

Lindenindiafair

Registering online will provide students quicker access to the fair in their city.


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Now, move videos from one gadget to another by touch

Washington: Now you can move images and videos from a smartphone to another tablet just by touch.

Scientists from Finland have developed a new technology whereby a ring, nail or wristband acts as a user interface allowing files to be transferred directly from one screen to another simply by touch.

The new InTouch user interface allows you to touch a file on one screen, for example, with a structure nail and transfer it through the nail to your friend's smartphone or even to your car.

From the end user viewpoint, the data transfer between devices currently happens using memory sticks, short-range point-to-point connections (for example, Bluetooth) or the cloud (sharing services).

The solution, developed by VTT Technical Research Centre of Finland, allows files to be received, sent and shared much more easily than before.

The InTouch user interface operates with touch screens and allows file transfer either directly or via a cloud service.

The new concept also enables entirely new kinds of interactive devices and product categories, and opens up new business possibilities, the researchers claim. Areas of application for the technology might include digital devices, cars, the manufacturing industry, logistics and health care. There is a patent pending for the technology. FTM
IIT-Kharagpur team for 'Lassi' as Google's next Android version

With a wish to see 'Lassi' as the next name of Google’s Android operating system, a team of students from IIT, Kharagpur, were in the city on Saturday to garner support for their campaign. The organizing team of Kshitij, the IIT’s annual fest, visited Guru Nanak Dev Engineering College (GNDEC here. “Google is known to name Android versions on desserts. It named its last version Kit Kat,” said Ritesh Saraoji, a team member, hoping that their campaign would make Google name the next Android version behind India’s much-loved dairy drink.

“At GNDEC, we created awareness about our Lassi campaign and got a good response. We also organised a workshop at Lovely Professional University, Jalandhar,” said Saraoji, an MSc economics student at Kharagpur IIT.

There are 50 students from the technology institute who are touring the length and breadth of the country for the campaign. “It has been announced that the name of the next version of Android will start from the letter L. So, we want Google to name the next version ‘Lassi’.”

In India, the average annual growth of Android is 57.7% a year, claims the Kharagpur IIT team. “India is among the top contributors to Android’s growth”, Saraoji claimed.

Gurpreet Singh, a student of GNDEC, said the campaign was informative. “It would be fun to have an Android version named ‘Lassi’. As for me, I never knew that Android's previous versions had been named after desserts,” he said.

The IIT team has already written an open letter to Sundar Pichai, a senior vice president at Google who oversees Android, Chrome and Google Apps. Pichai is an alumnus of Kharagpur IIT. The team also promoted Kshitij, the IIT’s techno-management fest, which will be held from January 31 to February 3.

What’s in a name?
Google has a liking for food when it comes to naming the version of its mobile operating system Android. Here’s a list of previous names

Cupcake
Donut
Eclair
Froyo