

Newspaper Clips

August 25, 2011

Deccan Herald B`lore 24.08.11, p-4

IISc only varsity from India among top 500

IIT Kharagpur out of world rank list

Shamsheer Yousaf

BANGALORE: The Indian Institute of Kharagpur (IIT-K), the lone IIT featured in the top 500 universities as per the Academic Ranking of World Universities (ACWU), has been dropped in the latest edition of the rankings released last week.

Only one institution from India has made it to the top 500 in the ACWU 2011 rankings, which is prepared by the Shanghai Jiao Tong University. The Indian Institute of Science (IISc) has made it to the list at a world ranking of 301-400.

The ACWU rankings are based on several parameters such as Nobel Prizes awarded, medals won in different fields, articles published in journals like Nature and Science and indexed in the Science Citation

Index-Expanded (SCIE) and Social Science Citation Index (SSCI). Another important component is the frequency with which researchers from the universities are cited in top journals.

The move comes at a time when the IITs have been subjected to strident criticism from several quarters for lack of research.

Earlier this year, Environment Minister Jairam Ramesh had created a storm after questioning the quality of faculty and research at IITs and IIMs. In May this year, he said, "There is hardly any worthwhile research from our IITs. The faculty in the IIT is not world class. It is the students in IITs who are world class. So the IITs and IIMs are excellent because of the quality of students not because of quality of research or faculty".

IIT Kharagpur has made a dramatic drop in the rankings in the last few years. In 2008, IIT Kharagpur was ranked at 301-401, while in 2009 it was ranked at 402-501.

The list is topped by universities in the US: Harvard University tops the list.

Among the top 10 are Stanford (2), Massachusetts Institute of Technology (3), University of California-Berkley (4), Cambridge University (5), California Institute of Technology (6), Princeton University (7), Columbia University (8), Chicago University (9) and Oxford University (10).

Separate lists for the top 100 universities in specialised fields were also released. IISc secured a rank of 76-100 in the top 100 engineering and technology universities, and a rank of 49 in Chemistry.

DH News Service

Times of India Hyderabad 24.08.11, p-15

IITs to stop JMET for PG management admissions

Yogita Rao | TNN

Mumbai: The Indian Institutes of Technology (Bombay, Delhi, Kanpur, Roorkee, Kharagpur and Madras) would discontinue the Joint Management Entrance Test and apply Common Admission Test scores for admissions to their post-graduate management degree programmes. The Indian Institutes of Management conduct the Common Admission Test.

The IIT-Madras, supposed to conduct JMET this year, is yet to issue an official advertisement on discontinuing it but the premier institutes have been informed about the decision. "Only students with CAT score will be eligible to apply," the institute's website said.

IIT-Delhi has also announced the JMET cancellation on its website and asked students to check websites of departments/schools of management for other eligibility criteria.

"JMET was only the qualifying exam. Instead of the

Instead of the JMET score, the CAT score will be considered for admissions

JMET score, the CAT score will be considered for admissions. Apart from the CAT score, individual IITs will have their own criteria like conducting GD and PI. Others might still conduct a qualifying exam for the international students.

However, IIT-B has decided to use CAT for the base qualifying score. IIT-Madras will be officially releasing advertisements announcing the new policy to students," said Graduate Aptitude Test in Engineering (GATE) chairman Narayan Rangaraj. "The IITs have jointly decided to do away with JMET."

An IIT-B official said, "The decision was taken to reduce the burden of multiple tests on students. CAT is a well-established qualifying exam for management aspirants. So, IITs be-

ing autonomous have decided to consider CAT scores for our admissions too."

Sources at IIT-Madras said performance in CAT, group task and personal interviews, previous academic qualification and work experience, will be considered for the selection process.

Around 5,600 students applied for the JMET last year from IIT-B zone. More than 26,000 students appeared for the exam from all over the country last year and close to 5,500 students qualified for the admission. Bangalore's Indian Institute of Science also uses the JMET scores for admissions.

CAT 2011 convener Janakiraman Moorthy from IIM-Calcutta said, "This year in addition to over 150 institutes that use CAT scores, IITs also have decided to use our scores. An official release is still awaited. Xavier's institutes, which conduct the Xavier's Aptitude test (XAT), will also consider CAT scores from this year onwards."

Times of India Chennai 24.08.11, p-12

IIT-M takes lead in best practices in teaching

TIMES NEWS NETWORK

Chennai: To handle the increase in class size and engage students from diverse backgrounds, the Indian Institute of Technology Madras (IIT-M) on Tuesday set up a centre for teachers to refresh views on teaching and learn best practices from each other.

Some of the measures taken include feedback from students on classes daily and video-graphing themselves lecturing to learn their own strong and weak points.

Speaking at the inauguration of the Teaching Learning Centre on campus, dean of academic courses K Ramamurthy said such a centre was important at IIT where 500 faculty members teach 600 courses, where some courses are also handled by several faculty.

Officiating director of IIT-M, V G Idichandy, said, "Excellent lectures are delivered by our faculty but student-faculty interaction needs to be improved and teachers must make an effort to con-

LEARN TO TEACH

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► They will video-graph themselves lecturing to learn their strong & weak points

► Centre will improve student-faculty interaction

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nect."

Chairman of the Centre for Continuing Education in IIT-M, Ajit Kumar Kolar, said this was the first such centre among IITs, while there were hundreds in the US and a few in China. He said that while many of the ideas were discussed informally at IITs, this was the first time a formal centre was set up. He expressed the hope that it would increase the focus, adding that the seeds for the centre were sown 15 years ago by (former director)

professor M S Ananth. Various workshops were conducted and around 70 faculty underwent various sessions. Now there are 15 young faculty and five senior lecturers in the centre. "I retire in three years. If I had known about some of these concepts 30 years ago I would have been a much better teacher," professor Kolar said.

Jeffrey E Froyd., director of academic development at Texas A&M University who has conducted a few workshops with IIT-M faculty and suggested various measures, said the IIT-M faculty had specifically asked for help on the above issues because the situation was different from what prevailed 10 years ago.

"They have tried out a method called minute paper in which students are asked to jot down a point that was clear in the lecture and another that was fuzzy. The teacher would clarify the doubts before starting the lecture the next day. Many faculty told me that this has been very effective," professor Jeffrey said.

Business Standard ND 25/08/2011 P13

Higher education's coming train wreck

TROUBLING reports about the failing higher education system in India are pouring in from every direction. The Indian Institutes of Management (IIMs) are finding it difficult to get an adequate number of quality students to fill the 3,000-odd seats for their flagship two-year full-time programme, even though nearly 200,000 aspirants take the Common Admission Test. Engineering colleges across the country report that only 10 per cent of the total number of students they admit every year have achieved a passing grade in the mathematics section of the entrance exams held to select candidates. Spokespersons for the IT industry say consistently that less than one in 20 Indian college graduates who apply for jobs in that sector are employable. I have sat in on interviews to select graduates from the country's premier computer science institutions and found that less than one in 100 have even the barest notion of what computer science is about.

Concerned people have listed many possible causes. High on their list is the booming coaching class industry in India which now offers to coach at every stage of life: from infants aspiring to seek admission in nursery school all the way up to IIM aspirants. But I am sceptical of the view that coaching classes are the cause of the problem about quality of education. I suspect they are the Band-Aid that desperate

parents apply to tackle the problem of quality of education. I know of one family in which the mother works as a domestic help and the father as a salesperson in a shop selling saris. They spend ₹600 every month on private tuition fees for their son who has just entered college; the college fee itself is only a fraction of that amount.

Students seem to trip up when it comes to applying what they have learnt in one context to solve a similar problem in another context. Robert Haskell, professor of psychology at the University of New England, terms such a problem-solving skill "transfer of learning". His book *Transfer of Learning: Cognition, Instruction and Reasoning* defines "transfer of learning" as the skill to detect that a problem "is like" or "is equivalent to" or "is the same as" or "resembles" or "is comparable to" some other problem that the student has encountered before. This kind of reasoning is evidence of the skills of mental abstraction, generalisation, induction and logical inference. These skills make up true education.

Most innovation activity takes place



AJIT BALAKRISHNAN

using such skills. Take, for example, eminent computer scientist Peter Chen's account of how he came to think of the entity-relationship model, a seminal concept in computer science. He says that in his native Chinese culture, the pictographs for the sun and for the moon are placed next to each other to create the Chinese character for "brightness". Both the sun and the moon have the ability to reflect light, so combining both to mean "brightness" seems perfectly natural. Similarly, the entity-relationship model in computer science combines properties of individual entities to create new ones. Professor Chen had transferred his learning of how Chinese pictographs are combined to the completely new realm of computer science.

Unfortunately, attempts to teach such transfer-of-learning skills by using the classic structured drills in the basics don't seem to do the job, nor do the efforts to do it by giving students unstructured free rein for self-discovery.

While searching for a solution to this pedagogic problem, Clayton Christensen of Harvard in his book *Disrupting Class* says that the answer may

lie in delivering student-centric learning. In this scheme, students learn each subject in a manner consistent with their type of intelligence and learning style. Unfortunately, the current education system in every country is organised into value chains, much like manufacturing and mass retail. In such industries material (in this case students) is inputted, some of the material is transformed by subjecting it to standardised processes (standard textbooks and teaching methods) and outputted to the next stage (a higher class) if students perform adequately in standardised tests. In the current business design of education, each part of this process - standard curricula, standard textbooks and standardised tests - has scale economics and is, therefore, difficult to customise.

What is needed, says Professor Christensen, is a business design for education that acknowledges that students learn in different ways and, since they have different mixes of linguistic, mathematical and visual "intelligences", their pace of learning varies.

How this can be done on a large scale in India is mind boggling; there are four million schools and 20,000 colleges in the country and in the next 15 years 345 million Indians will attain the age of 18 and be ready for the job market.

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Other stories



SIBAL: ALLOCATE ENOUGH FUNDS FOR EDUCATION

AGE CORRESPONDENT
NEW DELHI, AUG. 24

Union human resources development (HRD) minister Kapil Sibal on Wednesday called on all the states in the country to allocate enough money to improve the quality of education as also expand the infrastructure. This alone would make India a global hub of education, he added.

Answering a query in the Lok Sabha, the HRD minister compared the amount allocated by the Centre in the 11th Five-Year Plan to that of the amount set aside by the states. Lamenting the huge difference, Mr Sibal said, "The Central government in the eleventh plan had placed a huge amount at the disposal of the education ministry but a concomitant amount was not put in by the states."



MANILAL BHOWMICK

From a village boy, \$150m and example to follow

SHIV SAHAY SINGH
KOLKATA, AUGUST 24

BORN to a poor family, Manilal Bhowmick walked miles everyday to the village school at Seuri in Tamluk, West Bengal. In the years to follow, he would go on to study at Scottish Church College, Calcutta University, IIT-Kharagpur and UCLA.

Dr Bhowmick, now 81, is today the owner of a palatial building on a Los Angeles hill-top. And along the way, he has encouraged others to follow his example and use education as a steppingstone out of poverty.

This week, the physicist pledged \$150 million to IIT-Kharagpur, from where he had got his PhD 53 years ago, the goal being to set up a research centre that he hopes will produce Nobel Prize winners. He has already set up the Moni Bhaumik Educational Foundation, Kolkata, which since 1999 has fully funded the university education of about 120 students, underprivileged but meritorious, from rural Bengal. At present, 70 students are studying with these scholarships.

"I don't know them but I can understand... it is something I have been through," says Dr Bhowmick, whose interests, other than science, include spirituality.

Science and spirituality are complementary, he says. He keeps pondering about "consciousness" and his foundation will next year co-sponsor a scientific conference, "Looking Inwards: Correlation of Quantum Physics and Consciousness".

The Dr Mani Bhowmick Centre for Advanced Research of IIT-Kharagpur will come up at Rajarhat. "The centre will do cutting-edge, innovation-driven research of international standard. Producing a few Nobel Prize winners will be the goal," he says.

Incidentally, the IIT campus is built on the site of the Hizli detention camp, where Manilal's father Binodhar Bhowmick had been jailed along with other members of a movement challenging the British with an "independent Tamralipta government".

Manilal Bhowmick went on to become the first PhD student at the country's first IIT. He completed the PhD in 1958, the subject being quantum physics, with Dr Satyendranath Bose as one of the supervisors.

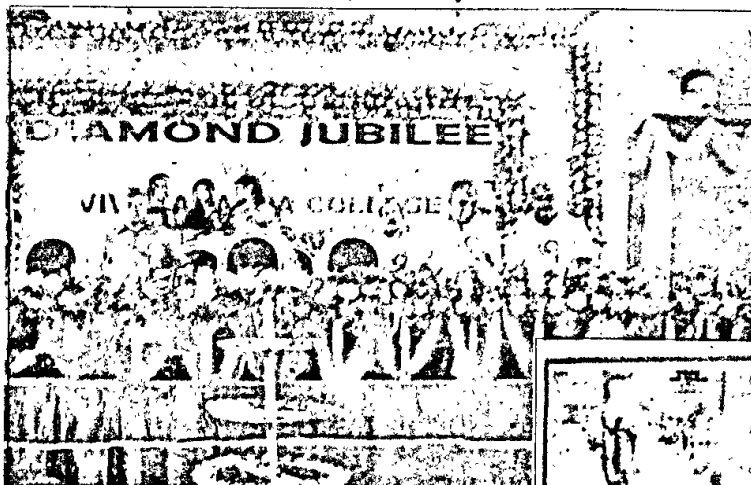
With a Sloan Foundation Fellowship in 1959, he went to UCLA for post-doctoral studies. In 1961, he joined the quantum electronics division at Xerox in Pasadena. In 1973, in Denver, he demonstrated a new excimer laser technology that he has since patented and which has been used in Lasik eye surgery, a procedure that can correct defects without the patient needing to use glasses or lenses.

Dr Bhowmick has been elected to fellowships in the Institute of Electrical and Electronics Engineers and the American Physical Society. He has written *Code Name God* and *The Cosmic Detective*. This year, he won the Padma Shri for distinguished service in science and engineering.

Statesman Kolkata 23.08.2011 p-10

Education for empowerment

Steeped in introspection and reappraisal, the diamond jubilee celebrations at Vivekananda College were by no means a routine affair.
payel rai chowdhury reports



VIVEKANANDA College in Thakurpukur remained open last weekend (20-21 August.) Teachers, students, parents and guests poured in and out from dawn to dusk. And no, it had nothing to do with admissions.

Even as the University of Calcutta marks its 150 years of existence, the college is steeped in diamond jubilee celebrations. On 21 August 1950, Vivekananda College — originally known as Barisha College — was established with the object of advancement of learning. Today, it has more than 3,000 students, 72 teachers and offers Honours degrees in 17 subjects at the undergraduate level. In addition, Electronics, Human Rights, Statistics and Women Studies are offered as electives.

No mean reason for celebrating a 60-year-old journey is the fact that the college, which was started out under the Refugee Education Scheme of the government to help meet the needs of higher education of the local populace of South 24 Parganas including those who had trickled in from the erstwhile East Pakistan, today enjoys the rare distinction of catering to the educational needs of a composite section of young learners from the urban middle class of south Kolkata as well as the rural poor of south Bengal, and transcending newer frontiers, all the while working to uphold its motto *Tomoso ma jyotirgamoy* (From darkness, lead us to light.)

The institution, situated not very far from IIM, Joka, which celebrated its 50th anniversary last year, has emerged as a major centre of academic learning and co-curricular (it runs a devoted NCC and NSS) and professional expertise (certificate courses from Fish Culture to Photo Journalism are offered) in south Kolkata.

"Sixty years is a long time in the life of an individual, but in the life of an institution this does not hold true," said Professor Dr Tapan Poddar, principal, who emphasised the continuing need to consistently grow as an academic institution in his opening address to

the event. Attributing the magnificent development of the college to principals and teachers who preceded him, Poddar outlined the various achievements and accomplishments of the students and staff, both present and past.

Besides excellence in academic performance in Part I and Part II (especially commendable performances within the departments of Bengali, History and Physics), Poddar conceded, "its one thing to admit an 80 per cent and have him maintain that record for his Part I and II, quite another to get a 50-55 per cent and build him into achieving a 65-70 per cent, especially when such a student belongs to a humble family. I commend the teachers of this college on this fine achievement time and again".

The inaugural session was attended by present and former students, staff and parents. Many a luminary like former Governor, Justice Shyamal Kumar Sen, who not only welcomed the introduction of new courses of contemporary relevance but shared fond recollections of his days as a "part-timer" at the University College of Law. Significantly, inspector of colleges, Debashish Biswas broached the idea that higher education was an area of formidable tax burden and as a member of the higher education fraternity one should ensure that the fruits of education were shared to address the advancement needs of the community at large.

A gratifying sight, even as the various sessions rolled on, was that of the present senior teachers

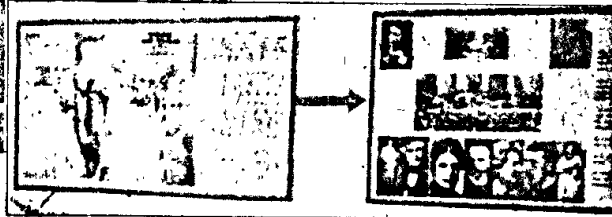
assisting and bringing former teachers of the institution to the front rows.

Smiles and goodwill was palpable and visitors remarked that the staffroom of the college enjoyed a rare warmth and camaraderie often found missing at many academic institutions. Established by Dr Bidhan Chandra Roy, the college in its anniversary celebrations did not forget to pay homage to many a stalwarts in the world of academic learning, conspicuous among whom were late Dr Sushil Kumar Ray, DSc, the first principal and secretary and the poet Jibananda Das who was a Lecturer in English at the college.

With a tradition steeped in critical reflection, close and familial interaction between students and teachers in an extensive campus situated in the midst of lush greens, the college has, over the years, emerged as a centre of academic prominence. No wonder, therefore that taking cognisance of the college's disseminative capacities, it has been recognised as a partner by both the Indira Gandhi National Open University (under the convergence scheme) and Vidyasagar University (in the distance education mode) and offers wide academic possibilities to students through postgraduate as well as undergraduate degree, diploma and certificate courses in subjects across the natural science, humanities

and commerce. In addition, it offers valuable guidance to students on several quarters through the placement cell, career and counselling cell, research guidance cell, women's cell, SC/ST/OBC cell and the internal quality cell.

The weekend celebrations, too, were not devoid of this mission of the institution to serve as a centre of knowledge and learning. While seminars and cultural programmes, including a scintillating performance by the Tanushree Shankar School of Dance, provided thorough entertainment, exercises in joyful learning were also included. Each department hosted exhibitions on the subject-matter of learning through student projects on various areas of



The exhibition rooms witnessed a consistent footfall of curious guests posting queries and comments.

interest. While the exhibition rooms witnessed a consistent footfall of curious guests posting queries and comments to students and teachers serving as guides, the gathering was especially thick at the science exhibitions where there was much of wonder, fun and interactivity to explore. In one exhibition room the walls were tastefully done up in earthy saffron (associated with *sanyaas*) and on entering it one found the life of Swami Vivekananda tastefully depicted through writings, photographs, epigraphs, memoirs and pictures. Whilst a soulful rhythm emanated softly from a music system in a corner, an almost quaint sense of serenity and quietude developed amongst the visitors as they passed by each depiction of his life guided with prominent arrows pointing the succession, so that one knew the entire life story. Sublime!

Another interesting and especially popular sight was the photo gallery where the ocular talents of teachers and staff were on display. From wildlife to urban landscapes, the galleries vouchsafed that students and staff had a keen eye for the picturesque.

The author teaches Human Rights at Vivekananda College

Times of India ND 25/08/2011 p-1

Advantage girls, by IIMs' grace

Hemali Chhapla | TNN

Mumbai: For years, every class at the Indian Institutes of Management (IIM) was boringly uniform. Students were mostly boys, with only a sprinkling of the other sex. In class, these young men thought similarly, used identical logic and took decisions that were alike, for they were all hardwired to behave in a certain fashion at the engineering campuses they came from.

In a strange correction to break the monotony of these two singularly large constituencies that cornered

► **New IIMs to do away with GD, P 10**

seats for years at the IIMs, the management schools have decided to award special marks to girls and non-engineering students.

FAIRER ENTRY?

► IIM-Rohtak will give **20 marks** to each girl and another **20** to a non-engineer

► IIM-Raipur will add **30 marks** to the overall score of each **girl-non-engineer**

► IIM-Lucknow will grant **five marks extra** to each girl and **two** to non-engineers

► **Extra marks** apart from CAT, scores, class X and graduation scores, and work experience

All the six new IIMs and the ones at Lucknow and Kozhikode feel it's time to rebalance the gender scales in office spaces. So while IIM-Rohtak will

give 20 marks to each girl and another 20 to a non-engineer, IIM-Raipur will add 30 marks to the overall scores of each girl-non-engineer. IIM-Lucknow has decided to grant five marks to each girl and two to non-engineers.

"It's for the first time that we have taken a conscious decision to make the diversity on our campus richer. Hence apart from the CAT scores, academic performance in Class X and at the graduation level, and work experience, we will award marks for two diversity factors — gender and academics," said IIM-L admissions chairman Arunabha Mukhopadhyay. Echoing his feelings was B S Sahay, IIM-Raipur director, who said that all the new management schools jointly took a call to benefit girls and non-engineers.

Times of India ND 25/08/2011 p-10

New IIMs to do away with group discussions

Hemali Chhapla | TNN

Mumbai: In a strange correction to break the monotony of tipping gender scales, IIMs have decided to award special marks to girls and non-engineering students.

Seven IIMs released their admission criteria months before the Common Admission Test. The new IIMs have decided to do away with group discussions and will instead jointly hold a Written Ability Test (WAT). "The aim of the GDs was to test candidates' communication skills, their

convincing prowess, their leadership abilities and their teamwork. But then many students get coached to participate in GDs. And sometimes, students who can't raise their voices and are not aggressive just go unheard," says IIM-Trichy director Prafulla Agnihotri.

The older management schools—IIM-Bangalore, Calcutta, Lucknow, Kozhikode, Indore, will, like IIM-Ahmedabad, expect students to clear a "writing task" as well as conduct GDs and personal interviews.

India outsourcing 2.0 begins

Apps for iPhones, Androids trigger next wave in BPO as Indians lap it up

KETAKI GOKHALE

Bloomberg

BETWEEN piles of trash and stray dogs near a Mumbai slum is the entrance to MoFirst Solutions, where two-dozen workers sit shoulder-to-shoulder with no air-conditioning and write code for iPhone apps on laptops.

The rates Indian developers charge are very low, said Akash Dongre, chief operating officer at MoFirst Solutions, where clients pay as little as \$15 an hour for a programmer.

MoFirst is tapping India's next wave in outsourcing, with thousands of programmers that charge a fraction of Silicon Valley prices to capitalise on demand for programmes for Apple's iPhone and devices running Google's Android software.

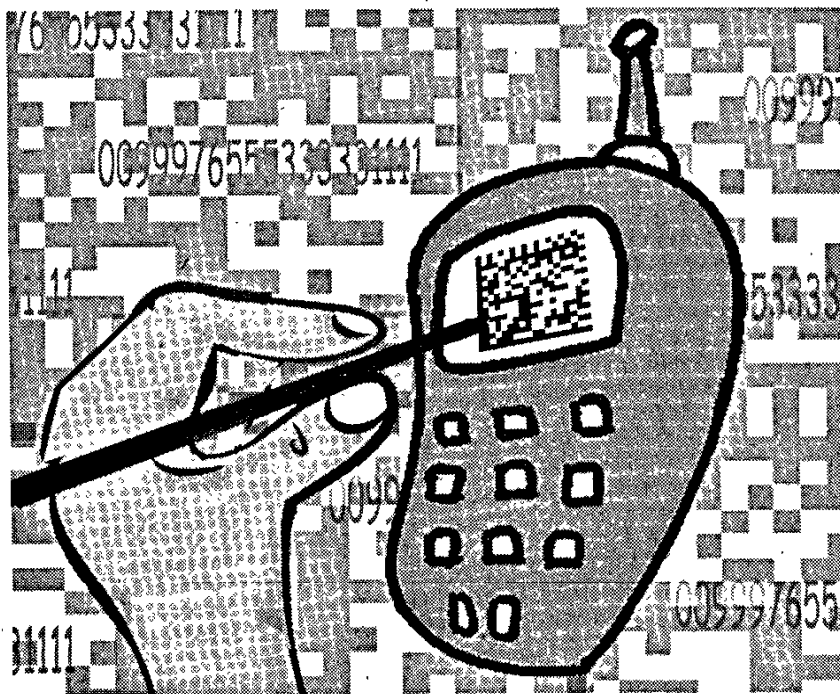
Developers-for-hire for mobile applications may generate \$5.6 billion in revenue by 2015, a 14-fold jump from this year, Forrester Research estimates.

India is a logical place to do it for the same reason the software and services model has worked here: lower cost, said Anshul Gupta, an analyst at research firm Gartner in Mumbai.

Applications on Apple's online store have been downloaded more than 15 billion times since its opening in 2008 — with the Cupertino, California-based company getting a 30 per cent cut on each sale — as the surge of iPhone sales spawned demand for games and applications.

It's not about the device that's not what makes sales happen — it's about the ecosystem, said Gupta. You need to have applications.

Companies or individu-



\$15/hour

is what US clients pay to a programmer in India for creating an app

\$100/hour

is what developers in the US charge for making the same app

\$5.6 billion

is the volume of revenue developers-for-hire can generate for apps by '15

20% rise

in requests for programmers who write code for Apple's iOS

als seeking to hire can turn to sites such as Elance's service, where companies such as MoFirst will bid to win app-development projects lasting from a couple of weeks to several months. India is the world's largest recipient of outsourcing orders, according to Elance, whose website showed more than 450,000 professionals offering their services as of on Tuesday.

Requests for programmers who write code for Apple's iOS platform rose 20 per cent in the second quarter, according to Mountain View, California-based Elance. Demand for programmers with Android skills rose by 15 per cent, while developer requests for Research In Motion's BlackBerry devices increased by 3 per cent, according to the company.

The iPhone stuff is very, very hot, said Ajai Shankar,

who spent 12 years in the US as a software writer and moved back to India this year to embrace the app-outsourcing boom.

The struggle people have nowadays, is that once you've developed an application for iPhone, the next thing you know is you have to do the same for Android.

Indian developers may have the edge in pricing. MoFirst bills clients in the US, the UK and West Asia \$15 to \$20 an hour, compared with the \$50 to \$100 charged by developers in the US, said Dongre, who has a mechanical engineering degree from Indian Institute of Technology (IIT), Bombay.

Applications MoFirst recently developed include Friends Alarm, an audio Facebook feed it created for a Texas-based entrepreneur, and Producteev, a task-management tool, for a New

York-based client, he said.

MoFirst's competition includes Qburst Technologies, which started in 2004 as a web developer in the southern Indian town of Trivandrum.

The company, which employs 400 people, may increase hiring after revenue from websites and iPhone apps jumped 76 per cent to \$3.18 million last year, said Manjith Kamalasanan, a business development manager at the company.

Qburst has developed 150 mobile apps for customers in the UK and the United States. That includes an iPhone app for St Albans, UK-based PrivateFly, which allows users to search for and book private jets; an e-commerce iPad application for Simba Toys; and an iPhone shopping search application for thefind.com.

Offering cheaper software than in the US and Europe has worked in India before. Tata Consultancy Services (TCS) and Infosys have grown from being back office service providers to Asia's two biggest companies by market value among providers of information-technology services, an industry, Gartner estimates will grow 6.6 per cent this year to \$846 billion.

While information technology services still dominate the nation's technology industry, the rise of mobile-app developers signals Indian technology companies may be evolving, Gartner's Gupta said.

That's what developers such as Dongre may be counting on. Change is happening 'fast' in India, said MoFirst's Dongre. People are starting to think more about developing products.

Times of India Kolkata 24.08.11, p-5

I was forced to leave convocation venue: IIT boy

Prithvijit Mitra | TNN

Kolkata: Chandrakumar Patel, the IIT Kharagpur electronics and electrical engineering graduate who sought to attend the convocation wearing a Gandhi topee, was allegedly asked to leave the venue before the prime minister arrived on Monday. According to the youngster, teachers wanted him to take the cap off which he refused to do. "I was forced to leave, though I hadn't broken the dress code," said Patel. The IIT authorities, on the other hand, claimed Patel had not been to the convocation hall and was 'lying to draw attention to the fast that has failed to move students'.

"As soon as I took my seat in the gallery at the Tagore Open Air Theatre, two of my professors approached me. They asked me very mildly to take off my cap. I reasoned with them that I was not breaching the dress code and that I was not going to shout slogans or try anything that breaks discipline. They were not convinced. Instead, they started telling me how I owed this little 'adjustment' to my alma mater. Soon, a few more teachers joined them and their tone was now getting more aggressive. 'You will have to leave the hall if you keep the cap on,' one of the teachers finally told me. I refused to budge till a few officials came and asked me to leave immediately. We still had an hour to go before the prime minister arrived and they clearly wanted me out before that. I chose to leave since the idea was not to create a scene or a flutter. It was to be a peaceful, symbolic protest," said Patel before leav-

ing for Bangalore on Tuesday afternoon.

Later on Monday, he submitted a letter to the academic section seeking his degree off-stage. He will get it by post. "I don't regret my action a bit since I believe it's more important to join the Lokpal campaign than to take part in a ceremony to celebrate a personal triumph. I wish the prime minister had seen me with the topee. That would have conveyed our message most effectively," he said.

Deputy director A K Majumdar rejected Patel's version. He hadn't been to the venue to receive his degree, Majumdar claimed. "He sought his degree off-stage and never went inside in the first place. None asked him to leave for he was not there at all. If he says he was turned out, he is lying. Patel requested the academic section for an off-stage presentation and has already been awarded the degree. There was no trouble on campus," said Majumdar.

Patel had flown into Kolkata on August 15 and then drove to Kharagpur to be in time for the fast that commenced on August 16 at Jhapetapur, about two kilometres from the IIT campus. "The purpose of my visit was also to be at the convocation. We gathered at Jhapetapur and started the fast. It had to be done at a spot outside the campus. Many of us decided to wear the Gandhi topee since it has come to symbolize Anna's campaign. It also signified protest, austerity, struggle and a movement for justice. Little did I realize that the authorities will have a problem with my innocuous headgear," Patel said.

IIT authorities claimed Patel had not been to the convocation hall and was 'lying to draw attention to the fast that has failed to move students'

Pioneer ND 25.08.2011 P-2

HC dismisses ITian's lawsuit

STAFF REPORTER ■ NEW DELHI

The Delhi High Court on Wednesday dismissed a lawsuit by an IIT graduate accusing the Centre of being unsure of both the procedure and the appointment authority for the Cabinet Secretary and seeking a direction to streamline the appointment process for the country's top bureaucrat. A division bench of Chief Justice Dipak Misra and Justice Sanjiv Khanna dismissed the plea, saying the petitioner himself does not appear to know what he wants to challenge as he has questioned neither the appointment of the present Cabinet Secretary nor

any specific rule or provision of law under which the appointment is made.

"After perusal of the petition and the prayer, no mandamus can be issued by the court. Hence, the writ petition stands dismissed," the court said. The petition was filed by Milan Gupta, a manager with an IT firm. In his petition, Gupta had alleged the Government in one of its replies to his query under the transparency law had said the Cabinet Secretary is appointed by the Cabinet Committee on Appointments, while in reply to another query it had said the President of India is the appointing authority.

90% species on earth yet to be discovered

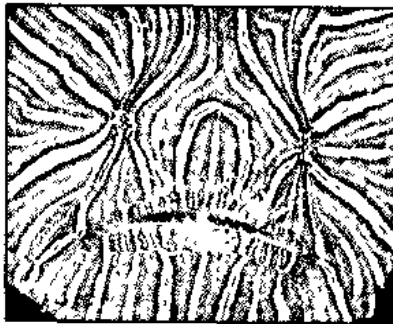
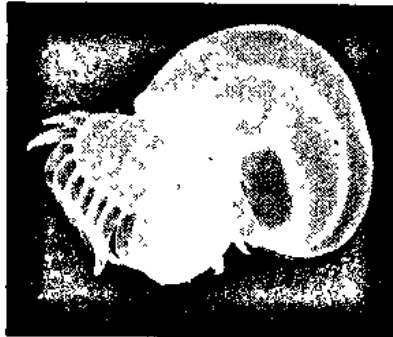
Of 9M, Just 1.2M Have Been Identified Till Date

Singapore: Scientists have yet to discover, or classify, about 90% of the plant and animal species on Earth, which is estimated to be home to just under 9 million species, a study says.

The study, published in the open-access journal PLoS Biology on Wednesday, vastly increases the estimated richness of life on the planet. More than 1.2 million species have been formally described and named so far.

Scientists have long tried to classify life on Earth and to finally figure out how many species there are but estimates have varied wildly from 3 million to 100 million. The quest is no mere scientific fancy. Humans derive huge benefits from the richness of life on the planet, from foods to medicines, to clean air and water. Knowing how many species there are and taking steps to ramp up the search and description could lead to more discoveries that benefit mankind.

The recent surge in extinction rates only made the quest more urgent, the scientists said. "With the clock of extinction now ticking faster for many species, I believe speeding the inventory of Earth's species merits high scientific and societal priority," said Camilo Mora of the Uni-



A CLOURFUL NEW WORLD: Some of the recently discovered marine species

versity of Hawaii and Dalhousie University in Halifax, Canada, who led the study.

Some UN studies say the world is facing the worst losses since the dinosaurs vanished 65 million years ago.

Mora and team studied existing species databases and taxonomic data. They examined well-known groups and found the relative numbers of species assigned to phylum, class, order, family and genus follow consistent patterns. Applying this pattern to less well-studied groups could yield a reasonable estimate of total species numbers. The result was 6.5 million species on land and 2.2 million in ocean depths. The study had a error margin of 1.3 million in total.

The results suggested 86% of existing species on land and 91% of species in the ocean still await description, the scientists concluded. "The diversity of life is one of the most striking aspects of our planet," the scientists say. "Hence knowing how many species inhabit Earth is among the most fundamental questions in science. Yet the answer to this question remains enigmatic." REUTERS

Facebook tweaks privacy settings

SAN FRANCISCO

Changes meant to help users get a grip on what they share with whom

BY SOMINI SENGUPTA

Privacy worries have bedeviled Facebook since its early days, from the introduction of the endless scroll of data known as the news feed to, most recently, the use of facial recognition technology to identify people in photographs.

At the nub of all those worries, of course, is how much people share on Facebook, with whom and — perhaps most important — how well they understand the potential consequences.

The company has struggled to find a balance between giving users too little control over privacy and giving them too much, for fear they will not share much at all. Seeking a happy medium, Facebook announced changes Tuesday that it says will help users get a grip on what they share.

When the changes are introduced Thursday, every time Facebook users add a picture, comment or any other content to their profile pages, they can specify who can see it: all of their so-called Facebook friends, a specific group of friends, or everyone who has access to the Internet. These will be indicated by icons that replace the current, more complicated padlock menu.

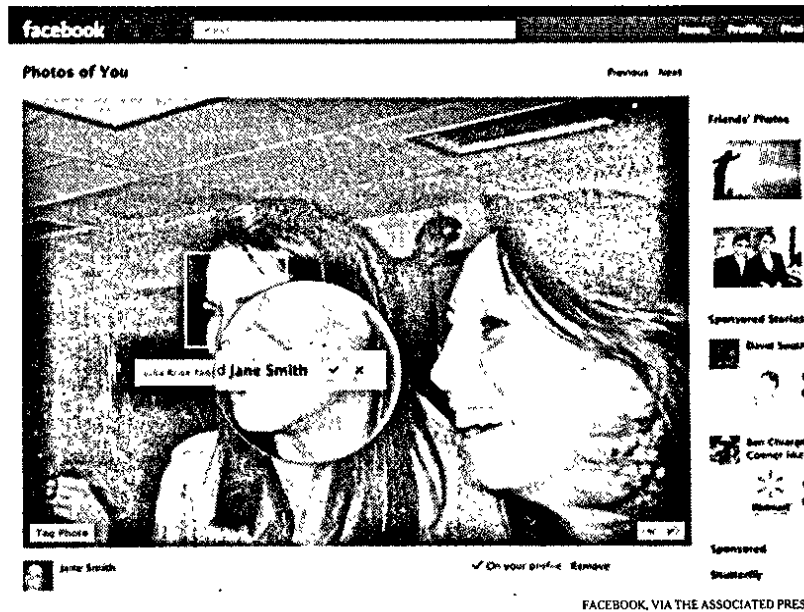
Similar controls will apply to information like users' phone numbers and hometowns and whether they like, say, death metal bands, on their profile pages. Users will no longer have to seek out a separate privacy page to tweak who sees how much of that personal information. Nor will they have to bother to remember what those settings were.

Company officials say they hope the changes will simplify the process of establishing who knows what about your life on the Internet — and hopefully, save a few people the embarrassment of unwittingly sharing too much.

"We want to make this stuff unmistakably clear," Chris Cox, vice president for product at Facebook, said in an interview. "It has to be clear that Facebook is a leader in how people control who sees what."

Implicit in these changes is the challenge brought on by Facebook's own success. It is used by 750 million people worldwide, with varying degrees of knowledge about what it means to have a life online. There is the looming prospect that the company will go public, along with the abiding concern about potential government regulation or litigation stemming from privacy issues.

Not least, there is the need for Facebook to cultivate the trust of its users,



Facebook, via The Associated Press
Users will be able to approve every picture in which they are tagged before it appears on their profile. The publisher of the photograph can still keep it up on his or her own page.

amid growing competition from Google's nascent social networking service, Google+, which emphasizes more compartmentalized communications with different sets of friends and acquaintances.

Facebook dismissed the notion that the changes were fueled by competition. Company officials took pains to tell reporters that they had briefed privacy advocates on the changes — including those who have been critical of Facebook — and solicited their feedback.

It is too early to tell whether users will find the changes more inviting or simpler, or whether they will reduce what

Facebook insisted the changes weren't fueled by competition.

Kurt Opsahl, a lawyer with the Electronic Frontier Foundation, called "the amount of unintentional oversharing on Facebook."

Privacy advocates warned that the new tools did not address a concern about sharing location. One Facebook user can publish information about another user's whereabouts without his or her consent — whether it is an employee at the beach on the day he or she called in sick or a husband at a strip club without his wife's knowledge.

Other privacy experts say that if users believe they have control over who sees what, they are more likely to share.

"I think it's part of an evolution to push back at the notion that Facebook is trying to trick you into sharing," said Jules Polonetsky of the Future of Privacy Forum, which is based in Washington. "You're more likely to do so when

you know what you're doing."

The new tools represent a departure from Facebook's more recent approach, in which users found much of what they posted — tags, photos and so on — to be widely accessible unless they explicitly specified otherwise. The default position, in other words, was to opt for sharing.

Mr. Cox said the new tools were meant to demystify privacy controls and ensure that Facebook users were never "surprised" by what others could see about them.

That includes pictures in which they have been "tagged." No longer will an unflattering or compromising photograph appear on your profile page without your consent, though the publisher of the photograph can still keep it up on his or her own page. Users will be able to approve every picture in which they are tagged before it appears on their profile pages.

Additionally, the privacy option that is now called "everyone" will instead be called "public." Facebook executives say they want to dispel any doubts about what the setting means. If you click "public," that means anyone who is online can see what you are posting, including perfect strangers — or, worse, parents, prospective employers and your ex-wife's divorce lawyers.

"We need to offer fine granularity in order to be a universally usable tool," Mr. Cox said. With the new settings, "it's more visual and prominent who the audience is."

Indeed, company officials say feedback from users suggest that pictures work better than words. So now, icons guide the way. "Public" is represented by a globe; "friends" by a pair of heads.

Set a bug to kill a bug

We know of human suicide bombers, made infamous by Kamikaze pilots of Japan during World War II, or more recently of the LTTE and Al Qaeda.

Now scientists have engineered a suicide *E. coli*, to help fight the invading pathogen *pseudomonas*, which causes pneumonia and other illnesses. Yet another approach to our fight against drug-resistant pathogens!

The battle between us and infection by germs is not one of wits but one of brains versus genes – our brains versus the germ's genes. We use our brains to make drugs and vaccines to beat the bugs. The bugs rely on numbers and chance error in their genes as they divide and generate more and more offspring.

Smarter bugs

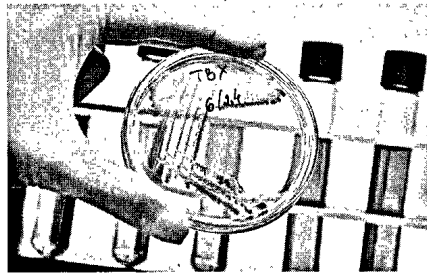
Even as most of them die due to the drug, or are stopped from infecting by the vaccine, a random mutation in their genes allows resistance to the drug or vaccine. And it is also a matter of time. We

take years to develop a new drug. But the bug takes just hours to reproduce and before you know it, the maverick 'outlier' mutant bug multiplies millions of times and becomes the winner against our brains. And it is back to the laboratory for us, in order to generate yet another, new generation drug.

But not all bugs are bad. Many of them infect us in our guts, skin and elsewhere, flourishing and in doing so, help us stay healthy. They engage in a mutualism, offering us essential molecules and metabolic help. We in turn allow them the 'green card' or permanent immigration status, to live in colonies that we call as our microbiome.

It is when a "foreign" or illegal bug that enters us that problems start. One such bad bug has the grandiose (mouthful) name *pseudomonas aeruginosa*.

Pseudomonas means the false unit (or the fake man). *Aeruginosa* means the colour of rusted copper (some think that *ruginosa* refers to 'wrin-



MAN'S CREATION: Scientists have engineered a suicide *E. coli*, to help fight the invading *pseudomonas*. – PHOTO: AP

SPEAKING OF SCIENCE

kled up' or bumpy). It colonizes within us and puts out toxic molecules that harm us (and the microbiome that lives in harmony with us). And we suffer with pneumonia and other severe illnesses.

The problem then is how to kill or drive away the intruder while saving us and our microbiome. Any drug or vac-

cine that we make should be specific against *P.aeruginosa* and here the brains versus genes tussle plays out. Drugs we use today against *Pseudomonas* are not quite successful since the bug has developed drug resistance.

A novel idea taken up some years ago by scientists, notably Dr. Sankar Adhya of the

NIH in America, and by Dr. J. Ramachandran of Gangagen Biotechnologies in Bangalore, is to use viruses that infect bacteria as the bullet. Just as viruses infect us, there is a class of viruses that infect bacteria and kill them. These are called bacteriophages. The approach here is to choose that phage which specifically targets say, *Pseudomonas* and let them invade and destroy the bug.

But here again, when we use this bug-specific virus as our helper, we ourselves could end up generating antibodies against the virus and reject it. If that happens, we are back to square one!

It is against this backdrop that a team of biochemical engineers led by Drs. Chueh Loo Poh and Matthew Wook Chang in Singapore's Nanyang Technological University have come out with a novel approach, which appears in the August 16 issue of *Molecular Systems Biology* (7: 521).

They looked at what all *Pseudomonas aeruginosa* has in its armor. 1: In order, to compete and survive against many other microbes, it makes a bacterial toxin or poison called pyocin; 2: But this pyocin must kill other

bacteria and not itself. So it makes two chains of pyocinone to kill others and the second chain that offers itself immunity; and 3: It needs numbers – a contingent or group to work together against the enemy. To do so, it sends out small molecules which signals more *P. aeruginosa* to come over and aid in the fight. These small molecules are termed poetically as the quorum sensor.

The Singapore group decided to hit out at all the three defence mechanisms at one go. In order to do so, they decided to take a strain of the bacterium *E. coli* that lives harmony within us in our own body, and to engineer three new genes into it. (Why *E. coli*? Because the strain chosen is safe and lives within us. And it multiplies fast and makes millions; dosage increases in no time).

The first gene is to produce a protein that binds to a quorum sensor of *P. aeruginosa*. Next in sequence to this, they engineered the gene for the protein pyocin S5 which kills the intruder *P. aeruginosa* but does no harm to *E. coli* or humans. And finally in sequence is added the third gene which produces a protein called Lysis E7, which ac-

tually bursts open the engineered *E. coli* itself. As it does all this, it also happily keeps on multiplying, so that in a short time, we have millions of the transgenic *E. coli* within us to fight the invader. As each of the *coli* bursts open, it releases the molecules that stop the *P. aeruginosa* on track and eliminate it. In the process, the

E. coli bombs itself out of existence. A cellular Kamikaze bomber!

The Singapore research thus paves the way to genetically engineer Kamikaze cells that can fight other invading germs, such as *Vibrio Cholerae*, and the group says that they will be attempting it.

This new approach is termed Synthetic Biology, which this group defines as a new discipline that aims to engineer genetically modified biological systems which can perform novel functions that do not exist in nature, with reusable, standard interchangeable biological parts. And, as we can see, this is akin to what engineers on one hand, and synthetic organic chemists do on the other.

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एआईईई की कॉपियां हो जाएंगी ऑनलाइन

नई दिल्ली | विशेष संवाददाता

राष्ट्रीय प्रौद्योगिकी संस्थानों (एनआईटी), ट्रिपल आईआईटी और अन्य चुनिंदा इंजीनियरिंग कॉलेजों में एडमिशन के लिए होने वाली प्रवेश परीक्षा ऑल इंडिया इंजीनियरिंग एंट्रेंस एक्जामिनेशन (एआईईईई) की उत्तर पुस्तिकाओं को ऑनलाइन किया जाएगा। मानव संसाधन विकास मंत्रालय की उच्चस्तरीय बैठक में यह फैसला लिया गया है। परीक्षा केंद्रीय माध्यमिक शिक्षा बोर्ड (सीबीएसई) द्वारा कराई जाती है।

मानव संसाधन विकास मंत्रालय के एक उच्च अधिकारी के अनुसार, इस बाबत सीबीएसई को निर्देश जारी कर दिया गया है। एआईईईई की 2011 में होनेवाली परीक्षा की उत्तर पुस्तिकाएं छात्रों के लिए इसकी वेबसाइट पर ऑनलाइन रहेंगी। परीक्षा के परिणाम आने के कुछ दिनों के बाद ही इन्हें ऑनलाइन किया जाएगा। बता दें कि पूर्व में आईआईटी-जेईई प्रवेश परीक्षा की कॉपियों को ऑनलाइन किया जा चुका

फायदा

- अभी तक आईआईटी और जेईई में ही कॉपियां ऑनलाइन की जाती हैं
- 27 हजार सीटों के लिए 10 लाख छात्र प्रति वर्ष एआईईईई में बैठते हैं
- इस साल से परीक्षा का ऑनलाइन विकल्प भी छात्रों को उपलब्ध कराया गया है

है। यह व्यवस्था इसी साल से लागू की गई है। जेईई परीक्षा आईआईटी और इसके समकक्ष संस्थानों में प्रवेश के लिए आयोजित की जाती है।

मंत्रालय ने साफ किया है कि सीबीएसई की बोर्ड परीक्षा की उत्तर पुस्तिकाओं को वेबसाइट पर डालने का फैसला नहीं लिया गया है। अलबत्ता सुप्रीम कोर्ट के आदेश के बाद यदि कोई छात्र अपनी कॉपी देखना चाहता है तो वह 'सूचना का अधिकार' कानून के तहत उत्तर पुस्तिका की प्रति हासिल कर सकता है।