Newspaper Clips
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HT New Delhi

World rankings: Poor research pushes India's grades down

THE WAY FORWARD More Indian institutions should consider themselves globally competitive and aspire to participate in global rankings for universities, say experts

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They are elite institutions attracting the best of faculty and the crème de la crème of students from across the country.

But if one goes by the recent world university rankings, the Indian Institutes of Technology (IITs) have slipped from their positions in 2012. Students, teachers and experts have expressed concern over this and suggested ways for improvement.

"The parameters largely responsible for the drop in the rankings of the IITs include academic reputation, faculty-student ratio and research capacity. We also need more students who are keen on pursuing research. Industry participation should also be increased if we wish to improve," says Anup Raaj, an IIT Bombay student.

Recently, UK's Quacquarelli Symonds (QS), one of the major global education ranking organisations, released its list of the top 200 universities in the world for 2013. No Indian institute featured among the top 200. IIT Delhi was ranked 222, down from 212 in 2012, and IIT Bombay at 233, down from 227 in 2012. IIT Kanpur and IIT Madras were ranked 295 and 313, respectively.

The story was similar in the latest Times Higher Education (THE) World University Rankings with no Indian institution being ranked among the top 200.

Joy Deep Nath, an alumnus of IIT Kharagpur says, "Indian universities seldom produce impactful research projects which depend upon a lot of things like good and motivated faculty, infrastructure and

HOW WE CAN GO UP THE LADDER

- The government could allocate more funds for research in pure sciences, provide incentives for quality faculty to stay in the universities, say students
- Experts say that the existing potential for improving the composite indicator rankings could be looked at
- Given the priority of expansion in Indian higher education, resources such as capital and talent should not be concentrated in a handful of universities to help them achieve world-class standards
- More students should take up research. Industry participation should be increased too

industry-academia partnerships. The government could allocate more funds for research in pure sciences, provide incentives for quality faculty to stay in the universities."

PUSHING FOR CHANGE
Positioning of the IITs globally has also been a point of discussion at the recent meeting of the IIT Council. Another important topic that was discussed was the existing potential for improving the composite indicator rankings, even though the undergraduate engineering programmes of the IITs are some of the best offered globally.

The focus is also on augmenting research. A number of measures have been approved to encourage students to enrol in PhD programmes in IITs. For instance, for students of CFTIs, with CGPA above 7.0, admission into IITs would be possible without the GATE.

Elaborating on the general opinion on global university rankings after THE's discussions with Indian academia and Indian government officials and the Planning Commission, Phil Baty, editor, THE rankings, says, "There was a very strong sense coming from the government that India can no longer afford to ignore the world university rankings, and universities must stop pretending that the global rankings are not relevant to India. An official from the department of higher education at the HRD ministry said at the meeting that we must play the same game the rest of the world is playing. We need not be shy about it."

Baty believes that a country of India's rich intellectual history, vast size and growing economic power needs at least some world-class universities that can compete with the very best universities in the world. "We have seen a steady and encouraging increase in participation in the rankings process by Indian institutions. This year, 19 of India's leading institutions took part in the assessment process, and there was a healthy mix of public and private. But over time, we would like to see many more Indian institutions taking part in our exercise. The Planning Commission believes there are around 100 institutions which should consider themselves globally competitive and should look to the global rankings," adds Baty.

While rankings may not be the "be-all and end-all" factor, a section of experts says that it is more important that every Indian institution, whether it is an IIT or a non-technical university, delivers what it is supposed to. "We should not over-fixate ourselves with the ranking phenomenon. It is more important to create an excellent R&D environment," says Pradipta Banerjee, director, IIT Roorkee.

WHERE INDIA LACKS
According to Baty, the key issue for Indian universities, in terms of their global competitiveness in the rankings, is their research output. "We measure institutions across the full range of their activities – teaching, research, knowledge transfer and international outlook – but the main indicators look at research quality, the impact of each university's research in pushing forward the boundaries of our understanding. This is an area where India's institutions are lagging," explains Baty. The rankings are "absolutely relevant" to India, he says.

Other reasons for the paucity of Indian higher education institutions in the world rankings are lack of resources and a profession of higher education, say experts.

"Building world-class universities requires abundance of resources, including, capital, time, effort and talent. Given the priority of expansion in Indian higher education, these resources could not have been concentrated in a handful of universities to help them achieve world-class standards," says Rahul Choudaha, a New-York based higher education expert and director of research at World Education Services.

2013 WORLD RANKING FOR INDIAN INSTITUTES

QUACQUARELLI SYMONDS		TIMES HIGHER EDUCATION	
IIT DELHI	222	PANJAB UNIVERSITY	226-250
IIT BOMBAY	233	IIT DELHI	351-400
IIT KANPUR	295	IIT BOMBAY	351-400

PHOTO: THINKSTOCK

THE HINDU
Business Line

IIT Madras Research Park unveils device for cardiovascular screening

Our Bureau
Chennai, Oct 29:

Scientists at the Healthcare Technology Innovation Centre (HTIC) in IIT Madras Research Park have developed a low-cost medical device to measure the stiffening of blood vessels. Arterial stiffening is an indicator of cardio-vascular diseases, which are now being measured by voluminous machines that use ultrasound imaging and cost in the range of Rs 15-40 lakh.

The new device, Artsens, about the size of a set top box, costs Rs 1 lakh and can be operated with minimal skills, says Mohanasankar Sivaprakasam, Head of HTIC. It uses a computer algorithm to interpret ultrasound signals reflected by blood vessels, and comes up with a numerical value reflecting vessel stiffness. It took over three years for the project to reach the prototype stage and will take another year for the development of a handheld device.

T.S. Rao, Senior Advisor, Department of Biotechnology, Ministry of Science and Technology, said a Clinical Development Plan and a protocol before widespread clinical trials of the device can be conducted. He mentioned it could take over seven years for the device to reach the "downstream" healthcare centres, where affordability is key.

The device has undergone two successful tests at Thambiran Heart and Vascular Institute, Chennai, and Sri Ramachandra University in the city where the device was set against the conventional pulse wave velocity method. Thanikachalam, Director, Cardiac Care Centre at the university, said extensive studies on all age and ethnicities groups must be undertaken before the device can be readied for public use on patients.

IIT-Madras comes up with quick route to keep heart disease at bay

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CHENNAI: A two-minute procedure could well save your heart without scarring your wallet.

At a time when experts are trying to make technology affordable to the growing number of people suffering from cardio-vascular disease, a researcher at IIT-Madras has developed an automated device to reduce the risk of non-communicable diseases.

The device, which costs less than a lakh, non-invasively measures the stiffness of blood vessels in a matter of seconds. The device, ARTSENS (Arterial Stiffness Evaluation for Non-invasive Screening), uses an ultrasound probe to send high frequency sound waves into the body. The echoes are picked up and analysed by a system that automatically identifies the artery anatomy and measures the elasticity of the blood vessel walls.

"Several factors such as age and lifestyle diseases affect the blood vessels, ultimately resulting in acute vascular diseases that affect the heart or brain. Early intervention using the device can prevent premature vascular events," said Dr Jayaraj Joseph, who headed the project team at the Healthcare Technology Innovation Centre (HTIC) of IIT-M.

A healthy person's arteries are elastic, and expand and contract with every heartbeat. Loss of elasticity, or arterial stiffness, indicates vascular injury, which happens with age. This alters blood flow and can lead to blocks in arteries and heart disease. Close to 10% of the population suffers from cardiovascular disease, which accounts for half of all deaths from non-communicable disease, according to Cardiological Society of India.

ARTSENS' developers say the device has an edge over existing equipment as it is cheaper, and easy and quick to use. "We have gadgets to check the stiffness of the blood vessel, but the procedures are laborious, and experts are needed to interpret the images. With this device, everything is automated and, as no imaging is involved, anyone can read the result," said Joseph.

Doctors say the device will enable detection of arterial stiffness at an early stage. "We can prevent premature vascular problems that could cause mortality in the productive years of a person's life and diseases can be managed more aggressively," said Dr S Thanikachalam, director of Cardiac Care Centre at Sri Ramachandra University, where the device was tested.

Doctors say the device will come most in handy for those in the public health sector where mass screening is undertaken. "Crores of money is spent on imported equipment. Since the indigenous device costs less than a lakh, it can be used in all the government hospitals, and will aid in quick assessment of vascular health in the population at large," said Dr Raja Venkathesh, head of the cardio thoracic department at the government general hospital.

A prototype of the device has been tested at MediScan Systems, Thambiran Heart and Vascular Institute and Sri Ramachandra University over the past six months. "Over the next year, we plan to validate it in multiple centres across the country before making it commercial," said Dr Mohanasankar Sivaprakasam, head of HTIC.
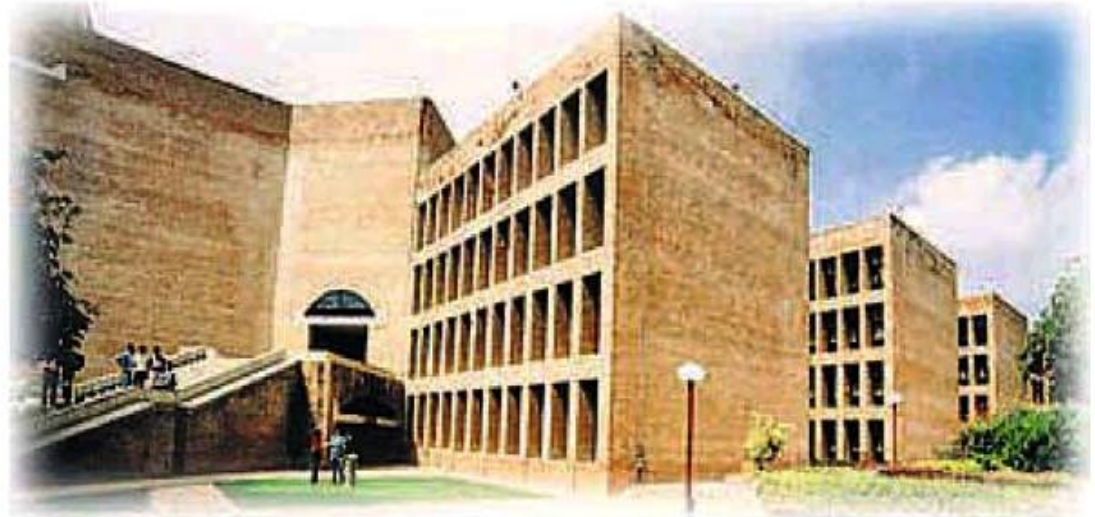
HT Kolkata

IIM-A changes its admission policy

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INTRODUCING a big change in the admissions process, IIM-Ahmedabad, recently ranked 36th in The Economist's global B-school rankings, has decided to shortlist students by their stream of undergraduate study, in addition to the usual method of combining CAT scores and academic ratings. Traditionally, IIM-A classrooms, like those of most other IIMs, have been dominated by a largely homogenous group of male, engineering students.

IIM-A has divided academic disciplines into five categories. Broadly, there is one category each for science subjects, humanities and law, commerce and economics, engineering and one for any other discipline not mentioned in the full list. The top 50 candidates or the top 1% (whichever is lower) from each category will be shortlisted based on their CAT scores, provided they meet the cut-offs. These candidates will all go into the subsequent selection rounds, the written analysis and the personal interview. However, after the first shortlist, all candidates will be judged at par with each other, and not by stream.

Speaking to HT Education, joint co-chairpersons of admissions at IIM-A, Chetan Soman and Ankur Sarin, explain the new policy.

■ Close to 95% of students in the current batch at IIM-Ahmedabad come from engineering backgrounds. This was one of the major concerns raised by the review committee.

What does this new policy set out to achieve?
IIM-A takes pride in the challenging academic standards of its flagship two year postgraduate programme (PGP) in management. Ensuring that admitted students have a demonstrated potential for succeeding in the rigorous programme is therefore an essential criterion in the admissions process. Further participative learning is an important ingredient of the education at IIM-A.

Education in an interdisciplinary subject like management, which has to grapple with problems in an increasingly complex world, is best enhanced by ensuring that the pool of students we admit has both a high degree of competence as well as diversity in academic background and training.

It allows perspectives and knowledge gained from different fields of study to be brought into the institute and be applied to the resolution of complex problems. This enriches learning both in and outside of classrooms.

Do you think this may hamper the quality of students, considering some candidates may have higher scores than others from the top 1% of another stream?
No, because this process is only to bring in a more diverse group of students into the selection pool. After the first round, all students will be marked on the same metric in the written analysis and personal interview rounds, irrespective of stream. We have different dimensions of evaluation, and this deals with only the first shortlist.

Some other IIMs have tried to tackle this problem by giving more application points to non-engineers and girls...
We can't speak for other institutes, but we don't want to stigmatise any group in the process of enhancing diversity. Our process is different from a points-based system, and different from a reservation system as well.

HT NEW Delhi

At Jamia, software to detect plagiarism in student projects

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NEW DELHI: In a bid to check plagiarism and encourage students to submit original assignments, Jamia Millia Islamia has introduced a software named 'Turnitin' that will scan all research documents and assignments.

University officials on Tuesday said they hoped that with this move, students were encouraged to submit original work, especially for class assignments.

"This will help faculty members to check any kind of plagiarism not just in PhD research but also in assignments of undergraduate and postgraduate students. More often than not, students just copy-paste from the internet for their assignments; the originality is lost. We will now ensure that such cases do not happen," the university's officiating vice chancellor, SM Sajid, told HT.

While text within quotes will be exempted, students, especially PhD scholars, have to be cautious about citations.

"Many a time, people forget to mention citations in their research papers. This will show the percentage of the text that has been borrowed from external sources and the faculty will go through the document to check

WHILE TEXT WITHIN QUOTES WILL BE EXEMPTED, STUDENTS, ESPECIALLY PHD SCHOLARS, HAVE TO BE CAUTIOUS ABOUT CITATIONS

its authenticity and verify what parts are quoted text and what parts have been plagiarised," Sajid added.

While this is primarily being seen as a deterrent, experts said this would be used to run ongoing research work through the scanner so as to make necessary changes before final submission.

"This has already been tested on some MPhil students and it has helped them a great deal. They ran their research through this scanner and found that there were some parts that could have spelt trouble for them. So, not only will this be a deterrent, students will be more certain of their work. We are ironing out some final things so that even if students change the font or juggle words around, the software is still able to detect any remote resemblance to the original text," said S Kazim Naqvi, additional director, FTK Centre for Information Technology at Jamia.

HT Mumbai

'Research can take us places'

ADVICE FROM OVERSEAS Indian students at top-ranked universities talk about what sets their institutions apart from the rest

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Indian students studying at some of the world's top-ranked universities also believe that it is the quality and quantity of research projects undertaken that sets the best universities apart from the rest.
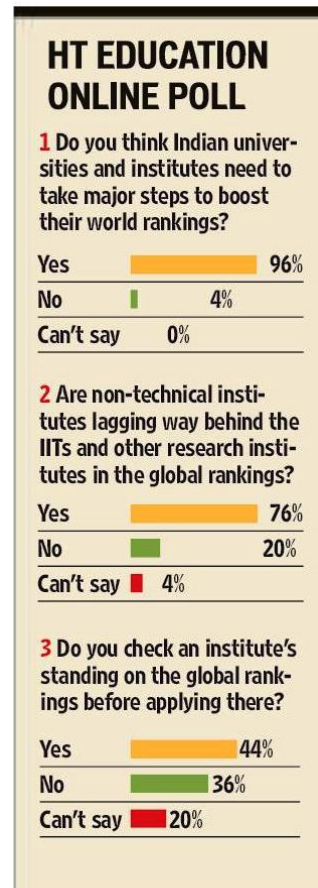
"The world university rankings analyse the standard of academic research that is done at each university, and the number of citations that this research gets, apart from other parameters like the quality of the teaching faculty at these institutes. Unfortunately, Indian institutions focus on just the latter, and little or no research is done by the faculty, leading to a low ranking.

"Institutes around the world had recognised the importance of focusing on R&D a long time ago, and now their investments are already yielding returns, by way of higher rankings," says Akshay Kohli, a student of Cambridge University.

Factors like shortage of funds, sub-par faculty and infrastructure are the primary reasons why Indian institutes cannot churn out any noteworthy research, he adds.

"The University of Cambridge has produced more Nobel laureates than any other institution in the world... most of the professors who are teaching me are authors of the course books we use for their subject. We frequently get the opportunity to attend seminars delivered by professors of other reputable universities — each of these factors has contributed to Cambridge's high global ranking," adds Kohli.

Strong alumni networks, a variety of subject choices available to students and diverse student bodies are other factors that distinguish the best universities in the world.

"Diversity and humility in the student body at Harvard University is one of the top reasons why my experience here has been so stimulating. It is very normal to be sitting with an Olympian, a pianist who has played in the Carnegie Hall (a concert venue in New York), an IMO Gold Medallist and an entrepreneur and not be aware of it," says Udai Bothra, a second-year student at Harvard University.

HT EDUCATION ONLINE POLL

1 Do you think Indian universities and institutes need to take major steps to boost their world rankings?

Yes	96%
No	4%
Can't say	0%

2 Are non-technical institutes lagging way behind the IITs and other research institutes in the global rankings?

Yes	76%
No	20%
Can't say	4%

3 Do you check an institute's standing on the global rankings before applying there?

Yes	44%
No	36%
Can't say	20%

Governor paves way for promotion of colleges, varsities' teachers

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LUCKNOW: Governor and Chancellor of state universities, BL Joshi, has approved the amendment in the UP State Universities Act, 1973, and has also signed the UGC Regulation 2010 for implementation in state universities. This has paved way for the promotion of teachers, change of nomenclature from lecturer to assistant professor and reader to associate professor, selection process of teachers, and other service rules for university and degree college teachers across UP.

Under Section 35 of the Act, the management of a college with minority status will now have the sole authority to dismiss or remove any teacher.

The university vice-chancellor will only observe the procedure of removal or suspension for a period of 30 days. Earlier, the management was required to take VC's approval before suspending any teacher. Teachers from the minority fraternity have opposed the move saying the state government has cited Sections 30, 14, 311 of the Indian Constitution in making the change. However, none of the sections give exemption to the minority colleges to dismiss any teacher on their own, they added.

The Act also states that the pro vice-chancellor of a university should be a full time professor and be appointed by the executive council on VC's recommendation. Also, the pro VC shall hold office for a period which shall be prerogative of the vice-chancellor to recommend a new pro VC to the executive council. The pro VC will also get special allowance, the amount of which will be determined by the state government orders.

For the appointment of principal of an affiliated or associated college, including self-finance institutions, the selection committee will comprise head of the management or a member nominated by him as the chairman; two members of the management nominated by the head, one of whom will be expert in academic administration and the college principal; one nominee of the VC who shall be a higher education expert and the head of the subject concerned; three experts consisting of the college principal, a professor and an accomplished educationist not below the rank of a professor to be nominated by the management; academics one each belonging to SC/ST and OBC to be nominated by the VC.

Many teachers' associations have welcomed the changes in the Act. But Lucknow University Associated College Teachers' Association (LUACTA) has demanded that retirement age of teachers be raised from 62 to 65 years.