IIT global meet on quake-resistant designs begins

TRIBUNE NEWS SERVICE

NEW DELHI, DECEMBER 22
With focus on promotion of earthquake or blast-resistant architectural designs and infrastructure development, the Indian Institute of Technology (IIT) Delhi is organising a three-day Structural Engineering Convention (SEC) starting from today under the auspices of Indian Association for Structural Engineering (IASE) at the Department of Civil Engineering.

The biennial event, has received overwhelming response from researchers and practitioners all around the globe with more than 400 research papers on many practical and technically challenging issues expected to be presented and discussed. Advances and state-of-the-art technologies in structural engineering will be deliberated upon too.

The conference will cover issues, including response of structures to earthquakes, cyclones and similar natural hazards, structural response to manmade hazards such as blast, the design of hazard resilient structures, low-cost housing technologies, damage detection technologies, health monitoring of buildings, bridges etc. during seven concurrent technical sessions making the total number of sessions to 35.

"The event will witness researchers, academicians and policymakers addressing diverse structural engineering topics such as blast resistant design of structures, computational solid mechanics, concrete materials and structures, earthquake, wind, fire engineering, random vibrations, structural dynamics, steel and concrete structures, structural stability, structural materials, soil-structure interaction, structural health monitoring, smart materials and structures etc.," said Dr. Vasant Matsagar, Associate Professor in Department of Civil Engineering.
रेलवे फाटकों को सुरक्षित बनाने में ली जाएगी इसरो की मदद : रेलमंत्री

लोकसभा में कहा, 11 हजार मानवरहित फाटकों को बनाएं सुरक्षित

एसी| नई दिल्ली

सदृश अंतरिक्ष में कामयाबी के इंद्रे गाड़ने के बाद भारतीय अंतरिक्ष अनुसंधान संगठन इसरो अब जमीन पर भी मानव जीवन को सुरक्षित बनाने की तैयारी में है। रेल मंत्री सुरेश प्रभु ने आज लोकसभा में एक पूरक प्रश्न के उत्तर में बताया कि देश में 11 हजार मानवरहित फाटक हैं जिन्हें सुरक्षित बनाने के लिए इसरो और दूर संवेदी संस्थान को सेवाएं ली जाएंगी।

उन्होंने कहा कि मानवरहित फाटकों की वजह से कई दुर्घटनाएं हो रही है लेकिन रेल विभाग के पास भी 11 हजार फाटकों पर चौकीदार नियुक्त करने के लिए पर्याप्त संसाधन नहीं हैं। प्रभु ने कहा कि मानवरहित फाटकों पर सुरक्षा बढ़ाने के लिए अनिल काकोडकर की अध्यक्षता में एक समिति का अध्ययन किया गया था जिसकी रिपोर्ट आ गयी है। रेल विभाग सुरक्षा को सर्वोच्च प्राथमिकता देता है और इस समिति की सिफारिशों को लागू किया जाएगा।

रेलवे फाटकों पर सुरक्षा बढ़ाने के लिए आर्पीएफ और जीआरपी के अधिकारियों की एक बैठक बलाई गयी है। उन्होंने कहा कि सरकार ने साथ ही भारतीय औद्योगिकी संस्थानों आईआईटी के प्रमुखों की एक बैठक बलाई है ताकि इस बात का पता लगाया जा सके कि रेल फाटकों को कैसे सुरक्षित बनाएं लेकिन उपाय किये जा सकते हैं। सरकार जल्द से जल्द इस दिशा में आगे बढ़ना चाहती है। ऐसे फाटकों की पहचान की गयी है जहां सर्वोच्च दुर्घटनाएं होती है।

प्रभु ने कहा कि मानवरहित फाटकों पर सुरक्षा बढ़ाने के लिए सरकार जल्दी की विज्ञापन देंगी ताकि गैर सरकारी संगठनों औद्योगिक संगठनों धार्मिक संगठनों और स्कूलों के स्वयंसेवकों को तैनात किया जा सके। इसके अलावा फाटकों के बाहर बड़े बोर्ड लगाने की भी योजना है जो लागू होगी ताकि नये अनुसंधान भेजकर आने जाने वाले लोगों को सावधान करेंगे।
3 young scientists do IISc proud, win top honour

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BENGALURU: Their fields of work may be diverse but they have something in common — dedication and excellence.

Three young scientists from IISc, all below the age of 35, have been conferred the prestigious Young Scientist Medal by the Indian National Science Academy (Insa).

The honour is given to exceptionally promising young scientists. Considered the highest recognition of creativity and excellence, the award comprises a medal, certificate and cash prize of Rs 25,000. The recipients are also entitled to a start-up grant for independent research.

"It gives us a lot of encouragement. The selection process is quite rigorous so the award is truly special," Santanu Mukherjee, 34, an award-winning researcher pursuing asymmetric catalysis (a branch of synthetic organic chemistry) at IISc, told TOI. In the field for close to five years now, Mukherjee wishes to conduct research in different areas. He is working on the concept of combining different modes of catalysis for the invention of new transformations.

Of the 557 nominations received by Insa from across the country, 80 candidates were shortlisted based on how interesting their areas of research are. Further, the selectors zeroed in on 30 winners from premier national institutions, based on the presentations they made at the Insa headquarters in New Delhi.

"It is indeed a great honour. I have been doing research for the past six years and this is an achievement," said Soumya Das, 33, another recipient. He came to IISc two years ago and is fascinated by the modular form of mathematics and its allied areas. Soumya primarily deals with the Number Theory.

"It feels great to get this recognition. It's an important platform for Indian scientists," said Suryasarathi Bose, 35, currently working on polymeric membranes using different functional nanoparticles. Polymer processing, polymer blends, carbon nanotubes and graphene-based polymer nanocomposites are the key areas of research for this materials engineering faculty member at IISc.

The awards were handed over at a function held at the Indian Institute of Oceanography, Goa, on December 21.

Meanwhile, three IISc scientists have been inducted into Insa — Paturu Kondiah for his work in tumour biology, Pradip Dutta for thermal technologies (mechanical engineering) and Srinivasan Sampath for materials chemistry.
Tension brews between DU, HRD ministry
Logjam Over UCMS Transfer

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New Delhi: Even as another assistant professor resigned from the University College of Medical Science (UCMS) earlier this month, another face-off between the HRD ministry and Delhi University administration seems to be brewing. Sources said the university has decided to ignore the directives on transfer of UCMS to Delhi government.

During the past three years, the HRD ministry has made repeated attempts to resolve the issue of duality and numerous meetings have been held in which even DU vice-chancellor, Dinesh Singh, had participated. The ministry finally wrote a letter on October 1 requesting Singh to complete the formalities of transfer of UCMS to Delhi government within a month. However, status quo exists even after 80 days.

“At the instigation of a small section of faculty and staff, the VC has adopted an obstructionist position which goes contrary to the decision of the HC. The VC has ignored the ministry’s directive where it is clearly written that the decision of the Cabinet has to be implemented,” said a UCMS faculty member in favour of the transfer.

“More than two months have passed but nothing has happened. The authorities said that the matter will be taken up in academic and executive councils. Initially it was said that that EC will take up the matter in the first week of December, but no urgency has been seen. If they really wished to honour the ministry’s decision, the VC could have arranged an EC meeting the same day,” said another teacher from UCMS.

TOI had earlier reported faculty leaving UCMS and the question was raised in Parliament. Smriti Irani told Parliament that nobody has cited lack of pay/promotion as reason for resignation. However, the faculty member who recently resigned stated “lack of promotion/pay and grade pay of Rs 6,000” as the reason (a copy of the document is with TOI). He even sent a copy of the letter to the principal and ministry of health and family welfare.

Dinesh Singh could not be reached for his comments.
We provide business education in the context of a university

Peter Tufano, the Dean of the Said Business School at the University of Oxford, has championed the concept of a “business school embedded within the University”. Tufano, who was in India recently at the Oxford India Business forum, discusses his school’s plans in India and trends in management education.

How has the MBA course evolved in your business school?

The fundamental approach that we are taking in the business school is to deliver education as an embedded part of Oxford University. What that means is rather than looking at things separately, we try to take advantage of their faculty and the university experience.

We have a one-plus-one programme where students come for two years to pursue a masters in specialised topics. In the second year, they do an MBA to combine technical expertise with management skills.

How has the global economic slowdown impacted your MBA programme?

Our programme is remarkably international and by that I mean that everyone in the school is a minority. We have about 20 per cent of our student composition from North America, 18 per cent from Europe, including the UK, 6 per cent from Africa and 20 per cent from India.

So throughout the programme, everyone experiences a world where they are a small part of the larger environment. On the teaching side, we have an equivalent of that diversity – the curriculum that students go through represents where they come from and is relevant to where they may go.

What are your plans for India?

We have had a week-long standing arrangement in India – through the forum where we have our people from Oxford engage with people from India to talk about responsibility in business. So we are able to do this because we are sitting there in Oxford and we can easily have our students interact with non-business students in the university and have our faculty interact with non-business faculty. For us to unilaterally come to India, we would, in essence, no longer benefit from that relationship.

UK has seen a dip in the overall number of Indian students because they cannot stay after their study visa is also delayed. Has this affected the number of Indian applicants?

It hasn’t affected us so much. It is, however, a general issue. We believe free flow of students is the best thing for the educational system.

And as a business professor and dean, I feel this exchange between cultures is important to help advance global businesses so I am saddened when countries make it more difficult for students to study abroad or in countries other than their home countries.

How does Said Business School encourage entrepreneurship?

Not just at Oxford but more generally what we are seeing is that while there continues to be interest in finance and consulting or more traditional careers, there is also tremendous interest in entrepreneurship.

In any one year, between 8 to 10 per cent of our students start a firm and around 15 to 18 per cent of our students end up working for a startup or social ventures of some sort (many of which are entrepreneurial in nature). So, a substantial section of our students are drawn to this type of career and this is, I think, relative to 10 years ago when I did my MBA, a substantial difference.

How have the scholarships and funding process evolved for Indian students?

I am constantly in talks with people who might want scholarships from India or other parts of the world. I believe schools need to make sure that students from all parts of the economic spectrum can come and get a great education in a place like Oxford. So, we haven’t been the beneficiaries of some of the large headline-grabbing donations like the American universities have done. But we continue to talk to various people who might want to support students from India to study at Oxford.

We also have a lending facility, an organisation called Prodigy, which is an intermediary that structures student loans.

What challenges do corporations and top executives of companies face in today’s environment?

Companies today have to think globally as opposed to locally both for their workforce and to sell their products. They also need to think globally on where their competitors may come from. So these factors make it much more exciting for a businesswoman/businessman today, but also make it more difficult.
Guj girl designs pain-free insulin delivery system

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Rajkot: Thousands and thousands of diabetics will have a reason to smile as they will be able to take their daily dose of insulin without pain. City girl Devina Kothari has developed an insulin delivery system that is virtually pain-free.

A graduate from CEPT University in Ahmedabad, with a post-graduate degree in industrial design from Institute of Technology-Bombay (IIT-B), Kothari feels that her design will benefit children and teenagers the most.

She was recently given the Red Dot Award, considered to be the ‘Oscar of Product Design’ by the Design Zentrum Nordrhein Westfalen, Essen, Germany, for the innovative insulin delivery system. Kothari’s pain-free device is all set for commercial production by drug giant Sanofi.

The device comprises a close loop of two inter-connected units, one for monitoring the insulin level in the body and other to diffuse insulin. The monitoring unit has an embedded GPS with a microprocessor, LED display, physical connector and a stainless steel probe which functions as a biosensor and continuously detects and monitors the blood glucose level and the pulse rate.

Taking the input from the monitoring unit, the diffusing unit releases insulin according to the body’s requirement. “The microprocessor is also connected with a back-lit LED which displays the current glucometer reading, pulse rate, insulin content in the reservoir and the current battery reserve of the microprocessor,” Devina told TOI.

The device is highly-recommended for children, unconscious, handicapped, and dependent patients or those under intensive care as it monitors, delivers and alarms simultaneously without frequent human intervention, she said. “Use of an array of micro-needles for continuous transdermal diffusing of insulin is what makes the process pain-free,” Kothari said, adding that she got the idea from a mosquito bite.