Newspaper Clips
May 20, 2014

HT Jaipur

India way behind China in science, engg PhDs

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MUMBAI: Only 4,500 students graduate with Phds in science and engineering in India annually, according to a report by British Council. In comparison, China awards 30,000 doctorates in these two fields.

The report, titled 'Understanding India: The future of higher education and opportunities for international cooperation', attributes the absence of the integration of teaching and research to India's poor performance in research in two of the most-sought after fields of study.

With only 1% of India's student population enrolled as post-graduate researchers, the report puts India far behind neighbouring China. India also has a low rate of enrolment in higher education, at only 18%, compared with 26% in China and 36% in Brazil.

According to the report, which draws from interviews held with policymakers and academicians from India, multi-disciplinarity in research is crucial for future innovation in the field. "It was noted by some that Indian science research is starting to turn its attention towards social impact; 'surroundings'-driven research will become more important in the coming decade and beyond," reads the report. Among those interviewed include members of the Planning Commission, India's apex higher-education regulator University Grants Commission and senior professors from IIT-Madras, Jadavpur University, Calcutta and director, TISS, Mumbai.

Pointing to constraints on research innovation and a poor enrolment rate, the report adds, "With a very low level of PhD enrolment, India does not have enough high quality researchers; there are few opportunities for interdisciplinary and multidisciplinary working, lack of early stage research experience; a weak ecosystem for innovation, and low levels of industry engagement."

Asked about the multi-disciplinarity reforms that can help retain students' interest in research, S Parasuraman, director, TISS, said systems such as Delhi University's four-year-undergraduate-programme (FYUP) could help students choose better and ensure their focus in a field of study.

"Many students take up engineering and science as fields of study because of societal pressure and engineering becomes a terminal degree with few students going for further study in the field. In the process, we have a large number of unemployable engineers. With integrated programmes such as the FYUP that allow exit options, students have more choices."

WHAT THE STUDY FOUND

30-40% teaching posts vacant, means India's academia is drastically understaffed

RATE OF ENROLMENT IN HIGHER EDUCATION

> MANY STUDENTS TAKE UP ENGINEERING AND SCIENCE AS FIELDS OF STUDY BECAUSE OF SOCIETAL PRESSURE AND ENGINEERING BECOMES A TERMINAL DEGREE WITH FEW STUDENTS GOING FOR FURTHER STUDY IN THE FIELD.
>
> S PARASURAMAN, director, TISS

IITB 2002 alumni raising funds to encourage innovative ideas

Tuesday, 20 May 2014 - 7:30am IST | Agency: DNA
http://www.dnaindia.com/mumbai/report-iitb-2002-alumni-raising-funds-to-encourage-innovative-ideas-1989873

The 2002 batch of the Indian Institute of Bombay (IITB) has set up IITB Innovate, an alumni-funded project to aid innovative research projects of students submitted at the IITB Incubation Centre.

The batch of 2002 first time came up with the idea at its alumni meet in 2012. Of 500 students in the batch, 100 attended the meet. It was here that they decided to encourage student initiatives that failed to take off due to lack of funds.

Anyone who wish to, can donate to 'IITB Innovate' to help those who approach the incubation centre with innovative research projects.

'IITB Innovate' signed an MOU with IITB two months back to start this project. All current students and IIT Bombay alumni are eligible to submit project proposals to IITB.

A project committee will review the proposals and select the grant awardees. The award consists of a grant of up to Rs 2-5 lakh. Initially, 8-12 awards are expected to be granted. That would, however, depend on the fund raised. The funding could go up depending on the availability of additional funds.

Abhishek Jain, a 2002 alumnus and member of 'IITB Innovate', said: "The alumni-funded project aims to stimulate innovation at IITB. There are many students who have great ideas, but lack funds when it comes to building a prototype. An Innovation Fund is being set up to support best innovations in research, technology and product development that would create a lasting impact on the quality of life in India. IITB will use this fund to provide capital to innovative projects and assist in the successful transition of innovative ideas from the early stage to prototyping."

Poyni Bhatt, chief operations officer, SINE (Society for Innovation and Entrepreneurship) IITB, said: "The project will definitely help those students who have difficulties in prototyping their innovative ideas. The MOU was signed by 'IITB Innovate' two months back, and the project committee recently selected one innovative research for funding."

Incubation program

SINE incubates start-ups by the IIT Bombay community. A necessary requirement is a linkage with IITB. It encourages technology-based ventures with social and strategic bearings. The applicants must have business proposals for technology-based products and solutions.

HT Chandigarh

CERN acknowledges PU contribution to Higgs project

HT Correspondent
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CHANDIGARH: European Organisation for Nuclear Research (CERN), Switzerland has appreciated the contribution of Panjab University (PU), Chandigarh, in the Higgs Boson project, popularly known as the God Particle.

The department had contributed in the detector hardware and physics analysis part of the project. The Panjab University's physics department had developed resistive plate chamber (RPC) plates used for particle detection as part of the CMS detector last month.

Compact Muon Solenoid (CMS), Resistive Plate Chamber (RPC) project manager and senior physicist at the Italian Istituto Nazionale di Fisica Nucleare (INFN) and CERN Dr Pierluigi Paolucci expressed 'special thanks to the PU team for the wonderful job' they did on the RPC upgrade project for the CMS experiment at CERN's Large Hadron Collider (LHC).

"This is a significant achievement for CMS experiment; thanks to all of your hard working efforts, we have achieved the goal. The extra time and effort you put in were certainly worthwhile," he has stated in an email to both the Bhabha Atomic Research Centre (BARC), Mumbai, and PU.

■ The physics department of PU had developed resistive plate chamber plates used for particle detection as part of the CMS detector last month. HT FILE PHOTO

Dr Paolucci said that 144 detectors were built and installed in the last two years and were now under commissioning. "This was possible due to the effort put in by your group and to the professional work done in last the two years," read the email.

PU and BARC, Mumbai had collectively contributed fifty RE42-RPCs and 160 kCHF each, which were part of the CMS detector used in the detection of the God Particle. Both institutes had also contributed man power equivalent to ten man months at CERN.

The last three pieces of RE42-RPCs would be shifted to CERN, Switzerland this week, thus completing PU responsibilities and contribution in this part of the detector.

It may be recalled that the Nobel Prize in physics 2013 was awarded jointly to François Englert and Peter W Higgs for the theoretical discovery of a mechanism that contributes to our understanding of the origin of mass of subatomic particles, which recently was confirmed through the discovery of the predicted fundamental particle, by the ATLAS and CMS experiments at CERN's Large Hadron Collider (LHC).

"The global appreciation had once again established the growing international stature of PU physics department in the field of experimental physics," a PU spokesman stated. PU vice chancellor Arun Kumar Grover has also congratulated the department and the scientists and students involved with the project.

Last month, Panjab University scientists had successfully developed the first resistive plate chamber to be used in the project to upgrade the Compact Muon Solenoid (CMS) experiment at the Large Hadron Collider, the world's largest and most powerful particle accelerator in Geneva, for experiments on the Higgs boson or 'God Particle.

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THE TIMES OF INDIA

Research on Super 30 adjudged best at TISS

TNN | May 20, 2014, 02.41 AM IST

PATNA: A research work on the famed Super 30 initiative, under which underprivileged IIT aspirants are coached to crack JEE, was adjudged the 'best research' at the Tata Institute of Social Sciences (TISS), Mumbai. The research done by TISS student Mini Narayan explores the "art and science" of th Super 30 model.

An elated Narayan termed it as a milestone, which will serve as a guide for future research on quality, inclusive education. The topic of research was 'Construction of academic resilience in adolescence fron the lower socio-economic strata'.

The researcher has worked on the origin and functioning of Super 30, teaching style of mathematician Anand Kumar, the way students get fired up for success while fighting against stiff odds and the socio-economic background of students.

"I spent time with the students of current batch as well as those of earlier batches, visited their homes and tried to understand the way the institute shapes the students from poor families for the country's premium tech cradle, and I was really amazed by their inspiring stories of how they fought odds to script one success after another," Narayan said.

She said she also worked on Kumar's model to understand what transforms the students academically as well as psychologically. The research has bee so well presented, dealing with meticulous details, that the TISS's Centre for Human Ecology has adjudged it the best research work of the year.

Anand said it was a success of Narayan as well as the Super 30 students who made it to IITs through hard work, devotion and commitment. "Yes, such developments do come as a big encouragement that reminds me to continue working hard with commitment," he said and added the University of Eas London and Japan's STB Research Institute also did studies on Super 30.

Times of India ND 20/05/2014 P-15

Prakash retires as UGC staffer at 62, but stays as its chairman

HRD Ministry Clueless About Chief's Acts

Akshaya Mukul | TNN

New Delhi: Taking advantage of loopholes in rules, UGC chairperson Ved Prakash retired himself as an employee of the commission at the age of 62 on April 30, 2014, and fixed his pension benefits. But he will continue as chairperson till April 3, 2017.

Documents show that on April 30, a UGC office order was issued on Ved Prakash's superannuation. The order said he will continue as chairperson till 2017 and will be treated as re-employed pensioner in the commission.

The HRD ministry said it was clueless about the development. "We do not have the details except that he retired at the age of 62," a ministry official said. He also said Ved Prakash was originally an employee of NCERT but in 2012 he got absorbed in UGC.

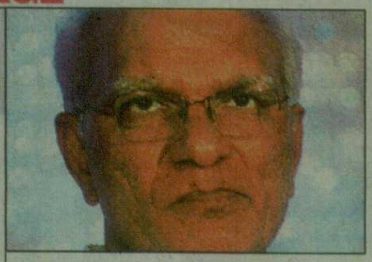
The ministry official raised several questions. He said the retirement age in UGC was 60, not 62. He also pointed out the age of retirement of NCERT faculty was raised to 62 without the approval of the competent authority which is HRD minister. "Retirement age of NCERT faculty is shrouded in grey," the ministry official said.

On his part, Ved Prakash explained that UGC in June 2012 as well as the HRD ministry "approved my option for counting of my previous services rendered in NCERT for pensionary and retirement benefits in and from the UGC up to the date of my age of superannuation in NCERT i.e. up to April 30, 2014". "This approval of the government was duly reported in the 487th meeting of the commission held in July 2012," he said, adding his "pensionary benefits after attaining the age of superannuation with my previous employer was calculated in accordance with the stipulated procedures of UGC".

Ved Prakash said a similar option was exercised by ex-UGC vice-chairman S K Khanna. However, the HRD ministry official said, "We are in the dark about various things. If he got absorbed in UGC, how come NCERT rules apply to him? As per UGC rules, he should have superannuated two years ago. We do not know on what basis his pension benefits have been calculated and who did it, UGC or NCERT."

DOUBLE ADVANTAGE

- **Ved Prakash**, originally an **NCERT employee**, was **absorbed into UGC** in **2012**
- In **January 2013**, he was appointed **UGC chairman**, allowing him to continue in office till **65. Prakash was 61** then, giving him a **tenure** till **2017**
- On **April 30 this year**, **Prakash retires** himself as **UGC employee**, though he is two years over the retirement age set for UGC
- UGC says he will **continue as chairperson till 2017** and be **treated as re-employed pensioner**
- Prakash **defends decision**, saying his retirement norms pertain to his tenure at NCERT, where 62 is the norm



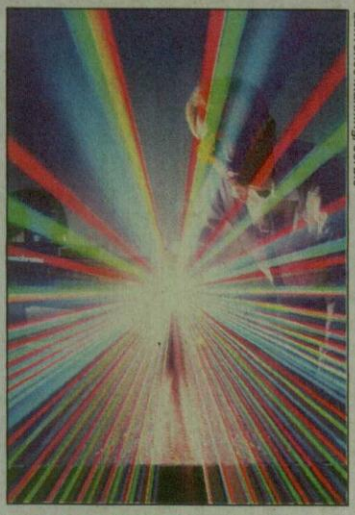
Times of India ND 20/05/2014 P-17

Now, convert light into matter

Experts Find New Method That Proves Theory Floated 80 Yrs Ago

London: Scientists have for the first time discovered a revolutionary technique to turn light into matter, a feat thought impossible when the idea was first theorized 80 years ago. Three physicists at the Imperial College London's Blackett Physics Laboratory worked out a relatively simple way to physically prove a theory first devised by scientists Breit and Wheeler in 1934.

Breit and Wheeler suggested that it should be possible to turn light into matter by smashing together only two particles of light (photons), to create an electron and a positron — the simplest method of turning light into matter ever predicted. The calculation was found to be theoretically sound but Breit and Wheeler said that they never expected anybody to physically demonstrate their prediction. It has never been observed in the laboratory and past experiments to test it have required the addition of massive high-energy particles.



Lawrence Manning/Corbis

EUREKA MOMENT

The new research, published in Nature Photonics, shows how Breit and Wheeler's theory could be proven in practise. This 'photon-photon collider', which would convert light directly into matter using technology that is already available, would be a new type of high-energy experiment.

This physics experiment would recreate a process that was important in the first 100 seconds of the universe and that is also seen in gamma ray bursts. The scientists had been investigating unrelated problems when they realized what they were working on could be applied to the Breit-Wheeler theory. Demonstrating the Breit-Wheeler theory would provide the final jigsaw piece of a puzzle which describes the simplest ways in which light and matter interact.

"Despite all physicists accepting the theory to be true, when Breit and Wheeler first proposed the theory, they said that they never expected it be shown in the laboratory. Today, nearly 80 years later, we prove them wrong," said Steve Rose from the department of physics at Imperial College. AGENCIES

HT New Delhi

Abdul Kalam awarded UK honorary degree

LONDON: Former president APJ Abdul Kalam has been awarded an honourary degree by the University of Edinburgh in recognition of his contribution to science and technology, a university release on Monday said. University Principal, Professor Sir Timothy O'Shea, said: "It is a privilege to welcome Dr Kalam to Edinburgh and to present him with an honorary degree. It recognises his extraordinary work as a scientist, as a figurehead for his country and for working to tackle rural poverty and injustice over many years". During his visit to Edinburgh, Kalam also provided the keynote address at the inaugural conference of the University's Edinburgh India Institute.

Dainik Bhaskar ND 20.05.2014 P-14

छात्रों ने बनाई रोबोटिक व्हीकल, विस्फोटक पता कर नष्ट कर देगा

छत्तीसगढ़ के छात्रों ने नक्सलियों के बारूद का ढूंढा हल पांच फीट नीचे तक बम तलाश कर नाकाम कर देगा

मोहम्मद इमरान नेवी | जगदलपुर

नक्सलियों के बारूदी सुरंग विस्फोट को नाकाम करने के लिए जगदलपुर इंजीनियरिंग कॉलेज के 6 छात्रों ने रोबोटिक ह्वीकल बनाया है। छात्रों का दावा है कि इस मानव रहित रोबोटिक ह्वीकल के जरिए घर बैठे ही जंगल, पहाड़ और सड़कों पर लगाए गए बम को ढूंढ़कर डिफ्यूज किया जा सकता है। फिलहाल यह जमीन में पांच फीट नीचे तक बम डिटेक्ट कर सकता है। छात्रों का कहना है कि कुछ राशि और खर्च कर इसकी कार्य क्षमता बढ़ाई जा सकती है। इलेक्ट्रॉनिक्स डिपार्टमेंट के फायनल ईयर के छात्र तपेंद्र मंडल, देवेंद्र यादव, सिकेश ध्रुव, अरुण साहू, पोठान अनंत और अमित सिंह ने 6 माह की कड़ी मेहनत कर इस रोबोटिक ह्वीकल को तैयार किया है। देवेंद्र ने बताया कि उनका पूरा प्रोजेक्ट रेडियो फ्रिक्वेंसी पर काम करता है। इस ह्वीकल के जरिए किसी भी मेटल को उसकी फ्रिक्वेंसी के हिसाब से ढूंढ़कर निकाला जा सकता है। बीएसएनएल के टीटीए दीपक शर्मा के अनुसार यह पूरी तरह से वायरलेस बेस्ड है। इसमें कुछ सुधार के बाद फिल्ड में उतारा जा सकता है।

कैसा है यह व्हीकल

रोबोटिक ह्वीकल तीन फीट लंबी व दो फिट ऊंची है। इसे जंगल-पहाड़ समेत छोटे-छोटे पुल के नीचे लगे ह्यूम पाइपों के अंदर भी ले जाया जा सकता हैं। ह्वीकल महज चार हजार रुपए में तैयार हुई है। इसे सस्ता बनाने के लिए चेचिस में लकड़ी का प्रयोग किया गया है। इसमें मेटल डिटेक्टर,बम डिफ्यूज करने के.लिए कटर और कुछ ट्रांसमीटर लगाए गए हैं।

घर बैठे कर सकते हैं बम डिफ्यूज

इस छोटे से मानव रहित बम डिस्पोजल ह्वीकल को सेटेलाइट से जोड़कर घर में बैठकर भी चलाया जा सकता है। इसमें जीपीएस सिस्टम लगाकर मोबाइल से भी ऑपरेट किया जा सकता है। ह्वीकल के सामने एक कैमरा लग जाने के बाद इसे मोबाइल या सेटेलाइट से कनेक्ट कर घर बैठे ही विस्फोटक नाकाम किए जा सकते हैं।

Purdue University, USA Honours Mr. Venu Srinivasan

Monday, May 19, 2014

http://indiaeducationdiary.in/Shownews.asp?newsid=29409

Report by India Education bureau, Bangalore: Mr. Venu Srinivasan, Chairman of TVS Motor Company, was on Saturday conferred an Honorary Doctorate of Management degree by Purdue University, USA. The honour was conferred on him during spring commencement ceremonies at Purdue's West Lafayette campus in recognition of his
contributions in the field of management. Mr. Venu Srinivasan is an engineer with a master's degree in management from Purdue.

Speaking on the occasion, Mr. Srinivasan said, "I am humbled and deeply moved with this honour. The very fact that this recognition has come from my alma mater makes it all the more special to me. Over the years, it has been heartening to witness Purdue grow from strength to strength to become one of the top universities in the world and I am proud to be an alumnus of this glorious institution. I feel gratified to have been able to give back to Purdue by providing students with a unique study abroad experience through global internship programs which expose them to

best practices within India's manufacturing sector."
Some of the awards conferred on Mr. Srinivasan include the prestigious Padma Shri Award for his valuable and outstanding contributions in the field of trade and industry by the president of India and the distinguished civilian honor 'Order of Diplomatic Service Merit' (Heung-In Medal) conferred by the president of the Republic of Korea, His Excellency Lee Myung-bak, in recognition of his valuable contribution in promoting Korea-India bilateral relations. He was bestowed the prestigious The Indian Institute of Technology, Kharagpur, the oldest IIT in India, conferred upon him "Doctor of Science". In recognition of his contribution to manufacturing, R&D, technology and quality excellence, he was conferred a "Doctor of Science" by the University of Warwick. He received the prestigious Ishikawa-Kano award by the Asian Network of Quality, the apex body for quality in Asia, which covers 18 countries including Japan, China, India, Korea, and Thailand. Mr. Srinivasan was awarded the JRD Tata Corporate Leadership Award by the All India Management Association for his contribution to leadership and management and the Jamsetji Tata Lifetime Achievement Award by the Indian Society for Quality.

Mr. Srinivasan is the Honorary Consul General of the Republic of Korea, Chennai, India, and member of the Prime Minister's Council in Trade and Industry. He is also a member of both the Prime Minister's Scientific Advisory Council and the National Manufacturing Competitiveness Council. He is chairman of the National Safety Council, Government of India. He has held the position as president of the Confederation of Indian Industries (CII) Under Mr. Srinivasan's leadership, Sundaram Clayton Limited and TVS Motor Company were awarded the Deming Prize by the Union of Japanese Scientists and Engineers (JUSE).