Newspaper Clips
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Economic Times ND 17/04/2015 P-4

Govt Appoints Directors to Three IITs

TO AVOID CONTROVERSY 'Disputed' names kept out of the appointment list

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New Delhi: The government on Thursday appointed three new directors to the Indian Institutes of Technology in Ropar, Bhuwaneshwar and Patna, leaving out two names that had led to a disagreement between HRD Minister Smriti Irani and nuclear scientist Anil Kakodkar.

An order issued late evening said that the ministry appointed Pushpak Bhattacharya, a computer science professor of IIT Bombay, as the new director of IIT Patna. Sarit Kumar Das, professor of mechanical engineering at IIT Madras, will be the director of IIT Ropar and RV Rajakumar, an electronics professor from IIT Kharagpur, the new director of IIT Bhuwaneshwar.

The appointments were shrouded in controversy last month, when Kakodkar, chairman of IIT Bombay and member of selection panel, quit ahead of the crucial meeting of the search-cum-selection committee on March 22 to interview candidates.

The selection panel, in its first meeting, had shortlisted Das and Bhattacharya to head IIT Bhubaneswar and IIT Patna, respectively, but differences cropped up over the choice for IIT Ropar. Professor Manoj Datta of IIT-Delhi was chosen for IIT Ropar by the selection committee but this was shot down by Irani, who reportedly preferred professor Rajiv Shekhar of IIT-Kanpur.

In the absence of a consensus for IIT Ropar, the ministry decided to call all the shortlisted nominees for another round of interviews which led to Kakodkar's resignation. Although, he was persuaded by the minister to withdraw his resignation, the IIT Bombay Chairman skipped the second meeting of the search-cum-selection committee on March 22, during which Irani and other members finally agreed to leave out Datta and Shekhar from the shortlist. Two other members of the search committee – MS Ananth, former director of IIT-Madras and Lila Poonawalla, chairperson of IIT-Ropar – also did not attend this meeting.

According to a source, Das, who was first chosen for IIT Bhuwaneshwar, was finally recommended for Ropar and Rajakumar for Bhuwaneshwar. All three suggestions were accepted and approved by the President, who happens to be the Visitor and appointing authority for all IITs. "Sarit Kumar Das had initially applied only for the post of director at IIT Ropar but at the second meeting he said that he was open to heading any of the three institutions, which is why he was then selected for IIT Bhuwaneshwar," said a ministry source.

SELECTIONS ISSUES

Appointments were shrouded in controversy last month, when Kakodkar, member of selection panel, quit the panel just before the candidates' interview

Hindustan Times ND
17/04/2015 P-9

Prez approves names of three new IIT directors

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NEW DELHI: President Pranab Mukherjee on Thursday approved the names of the three IIT directors, thus ending the contentious selection process which had led to the resignation of nuclear scientist Anil Kakodkar from the board of IIT Bombay last month.

RV Raja Kumar, Sarit Kumar Das and Pushpak Bhattacharya have been appointed directors of IIT Bhubaneswar, IIT Ropar and IIT Patna respectively.

While Kumar is from IIT Kharagpur, Das and Bhattacharyya belong to IIT Madras and IIT Bombay.

The selection process of the three IIT directors had stirred up a controversy last month when Kakodkar quit as chairman of IIT Bombay's governing body reportedly because of differences with the HRD ministry over the choice of a candidate for IIT Ropar.

HRD minister Smriti Irani had raised objections to the decision of the selection panel to call for interview a candidate who was outside the 37 shortlisted. Following the dispute, the ministry decided to call all the shortlisted nominees again for interviews leading to Kakodkar's resignation.

While the selection panel had reached consensus on two names, it was the choice of Manoj Dutta as the third candidate that Irani had objected to.

Dainik Jagran ND 17/04/2015 P-7

नदियों का पानी होगा साफ

आइआइटी दिल्ली के छात्रों ने तैयार किया है नैनो मटीरियल प्यूरीफायर

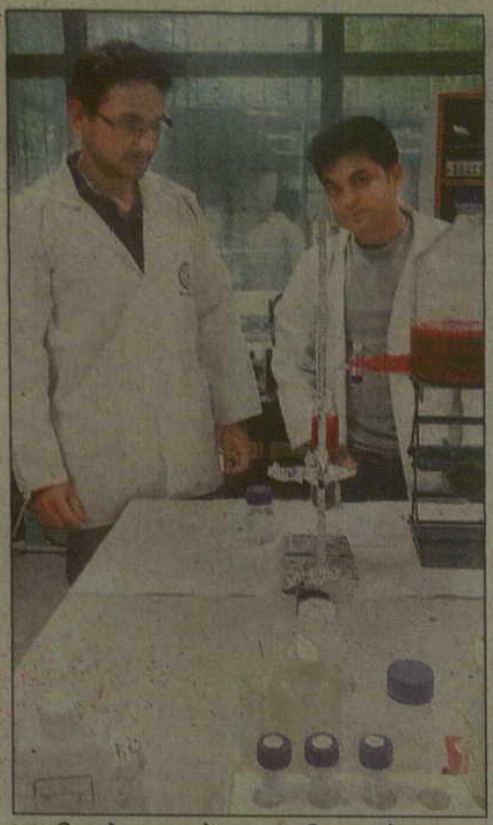
अभिनव उपाध्याय, नई दिल्ली

नदियों की सफाई के लिए कई योजनाएं बनाई गईं और उनपर अरबों रुपये खर्च किए गए, लेकिन उनकी हालत ज़स की तस बनी हुई है। मगर अब आइआइटी दिल्ली के छात्रों ने नैनो मटीरियल वाले प्यूरीफायर बनाकर नदियों को साफ करने की उम्मीदों को बल दिया है।

आइआइटी दिल्ली के रसायन विभाग के छात्रों की टीम ने प्रो. एके गांगुली के नेतृत्व में नैनो मटीरियल बेस्ड फिल्टर फॉर प्यूरीफिकेशन ऑफ इंडस्ट्रियल वेस्ट वाटर नामक प्रोजेक्ट तैयार किया है। इस प्रोजेक्ट का प्रदर्शन 18 अप्रैल को आइआइटी दिल्ली के ओपन हाउस में किया जाएगा।

प्रोजेक्ट से जुड़े और आइआइटी दिल्ली में पीएचडी कर रहे अरविंदो बरुआ का कहना है कि दिल्ली ही नहीं देश के अन्य प्रमुख शहरों में भी बड़ी मात्रा में गंदा पानी औद्योगिक संस्थानों से निकलता है जो सीधे नदियों में जाकर गिरता है। हमने जो प्यूरीफायर बनाया है उसमें डाला गया नैनो मटीरियल बहुत ही सस्ता और खास है और उसे ऐसे तत्वों से बनाया गया है जो पर्यावरण के लिए भी हानिकारक नहीं है। यदि इसका प्रयोग बड़े पैमाने पर किया जाए तो इसकी कीमत और भी सस्ती होगी। दिलचस्प यह है कि पानी साफ करने के लिए इस नैनो मटीरियल का उपयोग दस बार या उससे भी अधिक कर सकते हैं। पानी को साफ करने के लिए एक शीशे के जार में गंदा पानी एकत्रित किया जाता है। इसके बाद उसे शोधित करने के लिए नैनो मटीरियल के माध्यम से बाहर निकाला जाता है, जिससे साफ पानी बाहर निकलता है। बड़े स्तर पर इसका प्रयोग करने के लिए बड़े जार में गंदे पानी को एकत्रित कर शोधित करना पड़ेगा।

एक और शोध छात्र भरत कुमार का कहना है कि दिल्ली में पानी की समस्या तो है ही लेकिन एक बड़ी समस्या साफ पानी की भी है। इस प्यूरीफायर की मदद से किसी भी निजी कंपनी की अपेक्षा कम दाम में प्रति लीटर पानी साफ हो सकता है। प्रयोग के दौरान हमने भारी पार्टिकल वाले पानी को इसमें प्यूरीफायर किया तो इससे गंदा पानी 99 फीसद साफ होकर बाहर आया। इस प्यूरीफायर से टाक्सिस मटीरियल हट जाता है और पानी साफ हो जाता है। यदि यमुना की सफाई में इसका बड़े स्तर पर प्रयोग किया जाए तो यह बेहद कारगर साबित हो सकता है। हम बड़ी कंपनियों के साथ मिलकर भी इसे आगे बढ़ाने के बारे में विचार कर रहे हैं। इस नैनो मटीरियल को हम जल्द ही पेटेंट कराएंगे। दो ग्राम नैनो मटीरियल से 100 लीटर से अधिक पानी साफ होगा। दो ग्राम नैनो मटीरियल की कीमत 80 रुपये आएगी, लेकिन यदि इसे बड़े स्तर पर तैयार किया जाता है तो यह कीमत और कम हो जाएगी।



अपनी प्रयोगशाला में वाटर प्यूरीफ्रयर के साथ आइआइटी दिल्ली के छात्र। जागरण

IIT Students Device Method to Reduce Polluting CO2 Emissions

http://www.newindianexpress.com/nation/IIT-Students-Device-Method-to-Reduce-Polluting-CO2-Emissions/2015/04/17/article2768932.ece

NEW DELHI: When world leaders are hosting meetings and discussions to cope up with global warming, energy crisis and depleting resources, a group of students at Indian Institute of Technology here attempt to find a single solution to all the three environment issues.

The project, which in several interesting steps converts the casual agent of one of the problems into a key to solving the other two, will be displayed and demonstrated at the 11th IIT Open House on April 18 here at the institute.

The alarming concentration of Carbon Dioxide (CO2), one of the main contributors to global warming, has raised the need for minimising generation and sequestration of the gas.

The research group here at IIT Delhi, under the leadership of Anil Verma, has attempted to reduce quantity of pollutant in air but also convert it into several valuable products.

"We are involved in electrochemical conversion of CO2 and found that CO2 can be used to generate methane and other valuable products," Verma, an Associate Professor, Department of Chemical Engineering at the technology institute says.

The conversion of carbon-dioxide into methane has been using renewable sources of energy like sun or wind.

Verma mentions, that conventionally the gas is dissolved into a solvent during conversion. His team, instead captures the gas directly in a reactor where it is converted into methane and other products like formic acid and hydrogen gas.

"We have developed such a reactor in the lab and converted CO2 to methane and some other value added products," Verma, who has been working on this project with the team for nearly seven years now, says.

This process, he adds, saves both time and money. In this intriguing chemical reaction, while the solar of wind energy is used for the conversion, it is also being stored in the methane that is being formed as a product.

The methane, therefore, besides being used as a fuel for transportation, also serves as a repository of energy, which can later be put to use, offering relief to the exponentially depleting non-renewable sources of energy like coal and petroleum.

"Thus, conversion of CO2 will reduce global warming effect; methane that is produced can directly be used as fuel for transportation, and the solar or wind energy used for the process is stored in the fuel that can easily be transported using the present infrastructure and utilised whenever required," Verma explains.

However, Verma does mention about the several challenges that are being faced in the process, the major one being, "poisoning of the catalyst."

"The catalyst that speeds up the reaction gets used up before the reaction is complete," Verma explains adding that they are on the look out for scholars who can take up the poisoning issue and offer a solution.

Mainly targeted at school students, 14 departments and 11 centres of the institute are set to exhibit more than 70 innovative student projects and 400 research posters.

Research works that will be on display at the Open House include nanomaterial based device for water purification, portable and low cost device for early detection of infectious disease. A set of assistive technology projects designed to aid visually impaired people, include 'OnBoard' – a bus identification system.

An annual event, IIT Open House, offers an insight into revolutionary research work, student projects and numerous advanced facilities and laboratories at IIT Delhi.

Navbharat Times ND 17/04/2015 P-15

HRD मिनिस्ट्री ने IIT-स्वामी विवाद से पल्ला झाड़ा

■ ऋतिका चोपड़ा, नई दिल्ली

'बकाया सैलरी विवाद पर आईआईटी के बोर्ड ऑफ गवर्नर्स को फैसला लेने का अंतिम अधिकार है'

मानव संसाधन विकास (एचआरडी) मंत्रालय ने बीजेपी नेता और आईआईटी के पूर्व फैकल्टी मेंबर सुब्रमण्यम स्वामी की बकाया सैलरी भुगतान मामले में दखल देने से मना कर दिया है। मीडिया खबरों के मुताबिक, इस विवाद की वजह से आईआईटी दिल्ली के डायरेक्टर ने 3 महीने पहले अपने पद से इस्तीफा दे दिया था। खबरों की मानें तो उन पर स्वामी की बकाया सैलरी के भुगतान के लिए सरकार की तरफ से दबाव डाला जा रहा था। आईआईटी दिल्ली के कुछ अधिकारियों ने नाम जाहिर नहीं किए जाने की शर्त पर बताया कि स्मृति ईरानी की अगुवाई वाली मिनिस्ट्री ने तकरीबन तीन हफ्ते पहले आईआईटी दिल्ली को बताया कि संस्थान के बोर्ड ऑफ गवर्नर्स के पास इस मामले में फैसला लेने का अंतिम अधिकार है। स्वामी ने आईआईटी दिल्ली पर 1972 से 1991 के बीच 70 लाख की 'बकाया सैलरी' का दावा ठोक रखा है और इसको लेकर संस्थान और स्वामी के बीच अदालती लड़ाई चल रही है। स्वामी ने 1969 से 1972 के दौरान तीन साल तक संस्थान में इकनॉमिक्स पढ़ाया था और इसके बाद प्रशासन से अनबन के बाद उन्हें बर्खास्त कर दिया गया था। बीजेपी नेता ने आईआईटी को कोर्ट में घसीटते हुए दावा किया था कि उनकी बर्खास्तगी राजनीति से प्रेरित है।

Veer Arjun ND 17/04/2015 P-11

आईआईटी बाम्बे एल्यूमनी एसोसिएशन ने लांच किया 'ग्लोबल बिजनेस फोरम'

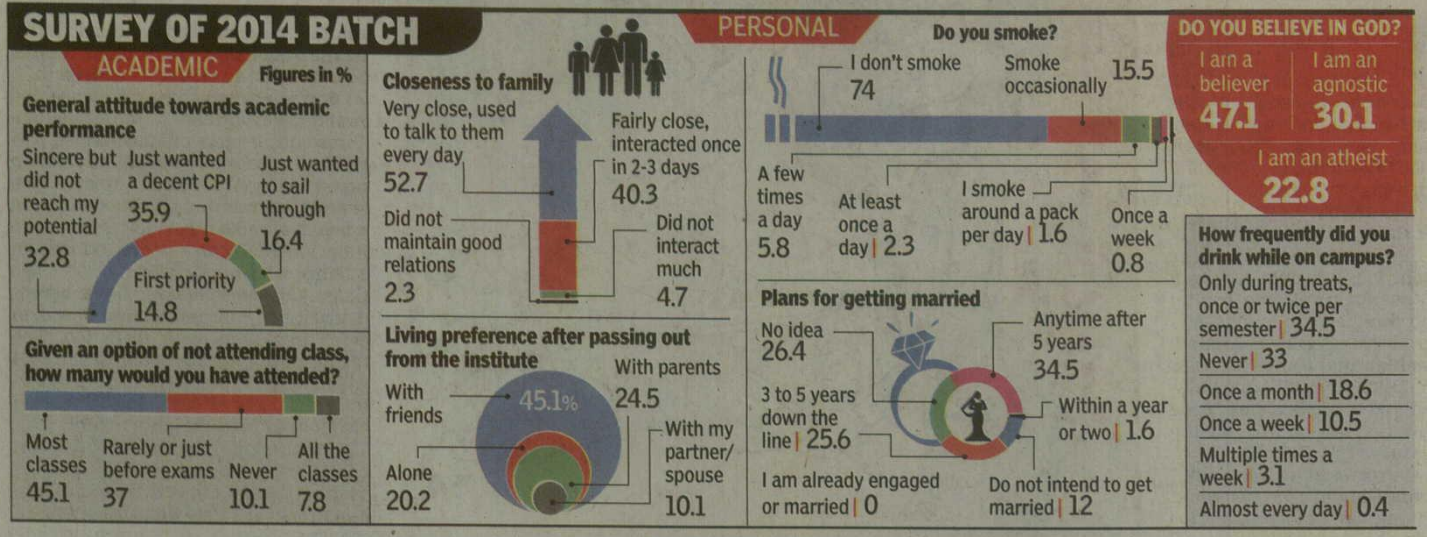
नई दिल्ली, (वासं)। आइआइटी बॉम्बे एल्यूमनी एसोसिएशन ने आज ग्लोबल बिजनेस फोरम के लॉन्च की घोषणा की। यह फोरम एक ऐसा मंच है, जो आइआइटी बॉम्बे समुदाय- अल्यूमनी, फैकल्टी एवं विद्यार्थियों के मौलिक तकनीकी व्यवसाय एवं अनुसंधान को प्रदर्शित करेगा। माननीय रक्षा मंत्री मनोहर परिक्कर, जोकि आइआइटी बॉम्बे के एक महत्वपूर्ण पूर्व विद्यार्थी रहे है, द्वारा प्रोत्साहित किए जाने वाले जीबीएफ का लॉन्च प्रो. डी. बी. पाठक, शिक्षाशास्त्री व प्रतिष्ठित प्राध्यापक, आइआइटी बॉम्बे, डॉ. अजीत रानाडे, प्रेसिडेंट व मुख्य अर्थशास्त्री, आदित्य बिरला ग्रुप तथा अशोक देसाई, संस्थापक व भूतपूर्व चेयरमैन, मास्टेक लिमिटेड की उपस्थित में एक प्रेस कॉन्फ्रेंस में किया गया। इस पहल को प्रोत्साहित करते हुए परिक्कर ने कहा कि, ''एक तरह से यह फोरम एक ऐसे परिदृश्य को प्रतिबिंबित करता है, जिसने मेरे प्रयास को दिशा-निर्देशित किया है।

मैं इस फोरम को निरंतर शक्तिशाली होते देखना चाहता हूं। इस अवसर पर बोलते हुए प्रो. पाठक ने कहा कि, ''तकनीक और निर्माण के क्षेत्र में नेतृत्व की अपनी तलाश के तहत भारत को अपने शिक्षा क्षेत्र, उद्योग और सरकार के बीच निकटतम संबंध स्थापित करने का प्रयास करना चाहिये। इस वर्ष यह फोरम खूबसूरत समुद्र तटीय राजधानी गोवा में 16 से 18 अक्टूबर तक आयोजित किया जाएगा।

Times Of India ND 17/04/2015 P-19

Scientific reasoning? Over 50% of IIT-B grads don't believe in god

In-House Study Also Throws Light On Love Life, Attitudes Of 2014 Batch



Yogita.Rao@timesgroup.com

Mumbai: Less than 50% of graduates from the 2014 batch of IIT-Bombay believe in the existence of God.

While 22% of the IIT graduates surveyed revealed that they are atheists, 30% claimed to be agnostics. The survey, conducted by the institute's media body for their in-house magazine, Insight, revealed other interesting facts about the students' personal, academic and campus life during their four-year stay at the institute.

A BTech student from the campus said that atheism primarily stems from the fact that a good number of students on the campus believe in scientific reasoning. "The IITs are engineering institutes and engineering is derived from science. Many students who believe in scientific reasoning will doubt the existence of God. But many who are not believers also do not completely discount his existence," said the student. The comprehensive survey carried out with a sample of 260 students from the 2014 batch gives an insight into students' attitude towards academics, career, their love life and their background (see graphic).

While 22% of IIT Bombay graduates of the 2014 batch surveyed revealed that they are atheists, 30% claimed to be agnostics

Almost 36% just wanted to get a decent cumulative performance index (CPI) in their exams. Only 14.8% of the batch claimed that performance in academics was their first priority and 16.8% of the students said they just wanted to sail through.

"An IIT degree has so much value that even if you are a moderate performer, your degree can take you places. But these students sacrifice academics a bit to develop other ideas, for entrepreneurship, for all-round development. As a faculty member, I would prefer them to focus on academics, but I would not feel discontented for this trend either," said a senior professor from the campus.

A final-year student from the current batch said that the scorecards are correlated to so many important things that students' focus remain on getting a decent CPI.

Economic Times ND 17/04/2015 P-10

IIMs Unveil Courses to Keep Students in Tune with Times

Devina.Sengupta@timesgroup.com

Mumbai: The country's best business schools too need to ensure their students keep up with the times. From understanding how business is done in China to brushing up on leadership skills, IIMs are introducing new subjects to equip future managers with the latest survival skills.

"Students want to be in the forefront of career opportunities, which determines their selection of courses," says C Raju, chairman, post graduate Programme, IIM Kozhikode.

IIM Indore's students will be trained on, 'Doing Business with China', 'Indian Public Policy', 'Big Data Analytics' and 'Econophysics' – the application of physics in financial economics.

At least 50 students will be taking up the elective on China this year, guided by Siddhartha Rastogi, associate professor of economics at the institute.

"Students will be taught ethnic, sociological, political dynamics of China, their industries and work culture," especially relevant since many Indian and Chinese firms are working together, says Rastogi.

IIMs try to introduce new electives every year where students vote on subjects they want to study, or those that professors recommend. In some cases, they are the result of seminars and industry interactions. The new topics are mainly rolled out for the second year and are not part of core subjects.

IIM Lucknow will introduce classes on 'Leadership Clinic'. "Students should know how to solve their most persistent problems relating to leading themselves and others. They should be able to examine crucible experiences from their personal lives that will shape their identity as leaders," said a college statement.

IIM Kozhikode will introduce a host subjects this year. These include Business Models for the 21st Century, Service Operations Management, Corporate Valuation, IT Strategy, Personal Selling, Hedge Fund Strategies and Computational Advertising.

Courses such as 'Doing Business with China' or 'Big Data Analytics' form part of electives

The 'Business Models' course will help students use innovative tools and come up with unconventional products and services, whereas 'Corporate Valuation' will help future managers evaluate any real, financial or intangible asset with a fair bit of accuracy.

One of the later entrants to the institutions' coterie — IIM Rohtak — will start with Economics of Financial Markets, International Marketing, Total Quality Management, Six Sigma, Business Games and Decision Analysis. Students opted for these courses after realising their relevance during interactions with faculty and peers. "These are among the preferred courses in most top business schools and are important for the business decision-making process," says a college spokesperson.

IIM-B will decide on the new subjects towards the end of the month, while IIM Calcutta did not respond to an **ET** query.

Mail Today ND 17/04/2015 P-4

Super 30 student gets scholarship from Tokyo University

SONU KISHAN

Abhishek Gupta (in garland) celebrates his achievement with his friends at Super 30 in Patna.

By **Giridhar Jha** in Patna

GOOD NEWS TODAY

SUPER 30, Bihar's pioneering coaching institute for underprivileged students, has a reason to celebrate even before the results of the IIT-Joint Entrance Examination are out this year.

Abhishek Gupta, one of its students from the current batch, has made it to the University of Tokyo for its international programme on environmental sciences.

Son of a generator operator, Abhishek has been selected for the College of Arts and Sciences in Tokyo under a scholarship programme. The university will bear all expenses to be incurred.

As per the university's letter to Super 30, Abhishek has been given a four-year scholarship, which covers admission fee (¥2,82,000 or ₹28.36 lakh), four years of tuition (¥5,35,800 or ₹53.90 lakh per year), and a monthly allowance of ¥1,26,000 or ₹12.68 lakh).

"The authorities of the University of Tokyo had visited Super 30 last year and also invited me to Japan to establish educational ties with us. They had offered scholarship to one of our students to enable him to pursue higher studies at the university," Super 30 founder Anand Kumar said.

He is the son of a generator operator

The much-feted mathematician said that Abhishek's selection would open the gate for more deserving students to study at the international university. "Japan is a technological hub and it will be a big opportunity for the students to get global exposure," he added.

A thrilled Abhishek, while celebrating with his friends at Super 30 in Patna, said that he could not believe his luck, and would like to help poor students after completion of his studies.

His father Dilip Gupta said that he was too overwhelmed by the news. "I could not study beyond Class X because of financial constraints. I could not send my son to any good school either. It is all because of Super 30 that he is now going to Japan for higher studies now," said Gupta.

Naya India ND 17.04.15 P-13

सी.ई.ओ. नडेला पाते हैं सबसे ज्यादा वेतन

नयूयॉर्क, 16 अप्रैल (एजेंसी): माइक्रोसॉफ्ट कंपनी के भारतीय मूल के सत्य नडेला अमरीका में सबसे अधिक वेतन पाने वाले मुख्य कार्याधिकारियों (सी.ई.ओज) की सूची में टॉप पर आ गए हैं। 'द इक्वीलर 100 सी.ई.ओ. पे स्टडी' नाम के अध्ययन में सामने आया है कि सत्य नडेला अमरीका में सबसे ज्यादा वेतन पाने वाले सी.ई.ओ. हैं।

माइक्रोसॉफ्ट नडेला को 8.43 करोड़ डॉलर (लगभग 525 करोड़ रुपए) सालाना वेतन दे रही है। इस अध्ययन में अमरीका की 100 सबसे बड़ी कंपनियों के सी.ई.ओ. के वेतनमान का अध्ययन किया गया है। पिछले साल इस लिस्ट में ओरैक्ल के लैरी एलिसन टॉप पर थे जो इस साल नडेला के बाद दूसरे स्थान पर हैं। वहीं अमरीका में आय के हिसाब से शीर्ष 100 कंपनियों के मुख्य कार्यकारियों का औसत वार्षिक वेतन 2014 में 5 प्रतिशत बढ़कर 1.43 करोड़ डॉलर हो गया।

HT.COM ND 17.04.15 P-6

Private universities ready for choice-based credits

ALL SET Officials at universities such as Amity, Shiv Nadar and Ashoka say that they already have the choice-based credit system (CBCS), as notified by UGC, in place.

Gauri Kohli

On Thursday HT reported on Open learning institutes reluctance to implement CBCS as it requires students to mix and match courses which is not possible in a correspondence course.

DU teachers were also afraid that hasty implementation without consulting with teachers and students will lead to problems, as it happened in the case of the Four Year Undergraduate Program(FYUP).

But private colleges have largely been open to the changes requested by the UGC.

Noida-based Amity University, for instance, has been following the semester and grading system since last year. "The UGC as well as the National Knowledge Commission have recommended revamping of higher education through academic and administrative reforms to bring about qualitative improvement in higher education. Keeping this in mind, the university introduced the CBCS and credit transfer system in 2014-15," says Professor Balvinder Shukla, vice chancellor, Amity University.

The university offers various degree programmes which are grouped together and follow a model programme structure framework. This framework gives a course-wise credit distribution for the programme.

Explaining the process, Shukla says: "Options are given to students under the specialisation electives, open electives, domain electives and field-based learning electives to choose interdisciplinary courses from other institutions, which help them make their own basket of courses depending on what they are interested in."

■ Students at Amity can choose minor courses from diverse fields.

Elaborating on how Shiv Nadar University (SNU) will prepare for these changes, Nikhil Sinha, founding vice chancellor, SNU, says: "We have been following the recently-notified CBCS since 2011. Students have the option of pursuing programmes with major and minor combination, double majors and also have the option to change their major mid-way. The undergraduate programmes have been structured to allow flexibility to the students to design their own course and fulfil the credit requirements. This is in line with the UGC guidelines."

According to Sinha, the new system would help in programme portability and institution portability. "However, it might be a challenge for a student of a small college to migrate to a university because of different accreditation processes. Thus it becomes imperative to both strengthen and revise the accreditation processes along with the credit system," he adds.

Vineet Gupta, founder and pro-vice chancellor, Ashoka University, says that the curriculum at the university is on the lines of the UGC-notified CBCS. "We follow a multi-disciplinary approach which is in sync with the CBCS. Under the CBCS, students pursue three types of courses — foundation, elective and core. We also have a similar pattern. During the initial two years of coursework, students will complete 12 foundation courses. The students then pick up courses in their area of specialisation. We already have a semester system in place and and are in the process of implementing a credit transfer policy too," says Gupta.

FIRST-MOVER ADVANTAGE

- Noida-based **Amity University** introduced the choice-based credit system (CBCS) and credit transfer system in 2014-15
- **Shiv Nadar University** (SNU) has been following the recently-notified CBCS since 2011. Students at the university have the option of pursuing programmes with major and minor combination, double majors and also have the flexibility to change their major mid-way
- Curriculum at **Ashoka University** is on the lines of the UGC-notified CBCS. Students at the university pursue three types of courses — foundation, elective and core

Scientists from IISc, Bengaluru, use stem cells to culture cardiac cells

http://www.thehealthsite.com/news/scientists-from-iisc-bengaluru-use-stem-cells-to-culture-cardiac-cells/

Scientists from around the world have invested their time and money in stem cell research to develop new methods for treatment of various diseases and conditions. As reported by The Hindu, this time, scientists from Bengaluru based Indian Institute of Sciences (IISc) have successfully grown cardiac cells by using stem cells from a mouse.The research was carried out for seven long years and led to the development of cardiac cells that function and beat in rhythms as an original cell does.

What are stem cells?

Stem cells are the basic cells of our body and they mature into various different of cells belonging to different tissues. They are derived from human umbilical cord or bone marrow. Stem cell therapy is based on the principle that stem cells migrate to the site of the injury and transform themselves to form new tissue cells that can replace the damaged ones. They have the capacity to multiply and renew themselves almost indefinitely and can form mature nerve cells, muscle cells and blood cells. In this therapy they are taken out of the body, and kept under artificial conditions (also called as induction of the stem cells) where they mature into the type of cells that are required to heal a particular part of the body. Read more about stem cell therapy.

Until now stem cells have been widely used for treating various diseases like:

Type 1 diabetes: Researchers have found that stem cells can be converted into insulin producing cells and hence can be used to treat type 1 diabetes. The cells which are cultivated in the lab will have to be implanted into human subjects for them to be mature and fully functional.

Hearing loss: The most common cause of hearing loss is the damage to the inner ear. A study revealed that stem cells of the spiral ganglion (cells found in the inner ear) can be used to restore hearing. Stem cells of spiral ganglions have an innate ability of self renewal and differentiating into different types of cells and these spiral ganglions can be regenerated and differentiated into mature spiral ganglions, nerves and glial cells. Hence, they can be used to design inner neural structure of the ear which can help treat hearing impairments
(Read: Scientists design new kind of stem cells for building organs)

Brain tumors: In this breakthrough research, scientists trapped the herpes virus in stem cells and used them to specifically target brain tumors. This experiment significantly improved survival rates in mice with the most common brain tumor in humans, glioblastoma multiforme. Mesenchymal Stem Cells (MSCs) were used as effective drug delivery systems and used to carry the cancer fighting virus. This virus helped debulking the tumour when it passed from the stem cells into tumorous cells. This technique has helped designing new treatment for this cancer.

Heart disease: Researchers have designed a 'mini heart' from stem cells to help return blood flow from veins lacking functional valves. A cuff like organ has been made from cardiac muscle cells which can be implanted over veins to aid blood flow through venous segments. Since this cuff is made from the patient's own cells, it reduces the chances of tissue rejection. (Read: Skin stem cells now to cure obesity)

IISc. professor wins nanotech award

With more than 100 papers in international journals to his credit, Arindam Ghosh, Associate Professor in the Department of Physics of Indian Institute of Science (IISc.), was awarded the Young Nanoscientist India Award 2015 here on Thursday.

In the 'Nanotechnology Forum 2015' programme held at IIsc, Bharat Ratna recipient C.N.R. Rao presented the 'Oxford Instruments Young Nanoscientist India Award 2015' to Prof. Ghosh for his contribution to Nano Science in India.

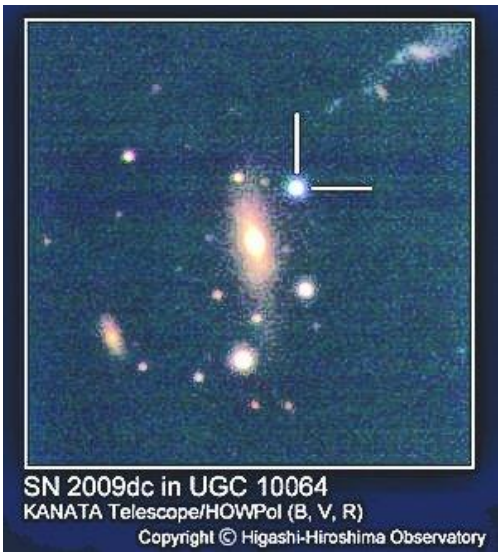
Forty-three applications had been received from researchers for the award that comes with a prize money of Rs. 2 lakh and a chance to represent the country in foreign universities.

Prof. Rao said the award will encourage good quality research in the country.

Indian physicists crack puzzle of exploding stars

G.S. MUDUR

http://www.telegraphindia.com/1150417/jsp/nation/story_15063.jsp#.VTCmeUalhWU



An image of an over-luminous supernova named SN2009dc (at the intersection of the two white perpendicular lines) located in a distant galaxy

New Delhi, April 16: Indian physicists have tweaked the ideas of Nobel laureates Albert Einstein and Subrahmanyan Chandrasekhar to propose a solution to a 25-year-old astronomical puzzle related to the luminosity of exploding stars called supernovae-1a.

The researchers at the Indian Institute of Science, Bangalore, have explained why a small number of supernovae-1a are defyingly brighter or bafflingly dimmer than expected, using a modified version of Einstein's theory of gravity and rewriting a rule formulated by Chandrasekhar during the 1930s.

Supernovae-1a are violent end-of-life explosions of a class of stars called white dwarfs that have been viewed as "standard candles" in astronomy because of their uniform luminosities. Several hundreds of these supernovae-1a have the same inherent brightness. But since the early 1990s, astronomers have been puzzled by observations of at least 12 supernovae that are brighter and at least 15 that appear dimmer than the standard candles.

"Changes to both Einstein's theory of gravity and Chandrasekhar's original formulation may be indispensable to explain over-luminous and under-luminous supernovae-1a," said Banibrata Mukhopadhyay, associate professor at the IISc who led the research.

During the 1930s, Chandrasekhar had predicted through calculations that white dwarf stars could have masses at most 1.44 times the mass of the Sun. Studies and observations since then have shown that white dwarf stars that explode as supernovae-1a have near-uniform luminosity, linked to the internal chemistry of the stars.

Mukhopadhyay and a team of research scholars and students at the IISc, looking for explanations for the puzzling over-luminous and under-luminous supernovae-1a, borrowed a version of the theory of gravity proposed by Einstein in 1915, but modified by a Russian cosmologist Aleksei Starobinsky in 1980.

In an earlier study, the IISc scientists had shown that some white dwarf stars may acquire masses up to 2.5 times the Sun's mass before they obliterate themselves as supernovae, challenging the 1.44 mass limit imposed by Chandrasekhar and viewed as a sacrosanct number for decades.

The scientists have now applied the modified Einstein's theory of gravity on white dwarf stars and found that the Chandrasekhar mass limit is not a unique number, but can take a range of values - any number between 0.5 to 2.8, depending on the density of matter packed in the stars and on the modification to the theory of gravity itself.

"The higher-mass stars are progenitors of over-luminous supernovae-1a and the lower-mass stars are progenitors of the under-luminous supernovae-1a," Mukhopadhyay said. The results of the new study have been accepted for publication by the Journal of Cosmology and Astroparticle Physics.

While Einstein's theory of gravity -- more commonly called the general theory of relativity -- has passed experimental tests and is considered a pillar of fundamental physics, researchers have long suspected that it is not a complete theory and needs modifications to explain certain physical phenomenona.

The results from India have drawn interest in astronomical circles elsewhere, but some physicists are questioning the need to invoke a modified version of gravity to explain the observed variations in the luminosity of supernovae-1a.

The results suggest that the standard Chandrasekhar limit for white dwarf stars can be violated through an alternative theory of gravity, Salvatore Capozziello, a professor of astronomy at the University of Napoli, Italy, who was not associated with the research, told The Telegraph.

The study shows that the critical mass of white dwarf stars depends on the law of gravity, Yavuz Eksi, professor of astrophysics at the Istanbul Technical University, Turkey, told this newspaper. "This theory may address (other) problems difficult to tackle through Einstein's general theory of relativity."

But some physicists caution there may be simpler explanations for supernovae-1a luminosity variations.

"Asymmetry in the (supernovae) explosions and the evolution of certain spectroscopic features of the

supernovae could be another way to explain the different luminosities," said Gautham Narayan, an Indian scientist at the National Optical Astronomy Observatory in Arizona, US, who has been independently studying the diversity of supernovae-1a and its implications for cosmological measurements.

Research scholars Indrani Banerjee, Upasana Das, and Sujit Nath and undergraduate students Praveer Tiwari, Sathyasageeswar Subramanian, and Mukul Bhattacharya contributed to the research.

In the past, other astrophysicists have tried to resolve the issue of over-luminous and under-luminous supernovae-1a through multiple explanations that Mukhopadhyay says appeared "mutually antagonistic."

"We've proposed a single, foundation-level analysis to resolve these supernovae," Mukhopadhyay said.

President Mukherjee calls upon youth to lead India to International community

http://bharatpress.com/2015/04/16/president-mukherjee-calls-upon-youth-to-lead-india-to-international-community/

New Delhi, Apr. 15: President Pranab Mukherjee on Wednesday referred to as upon the youth to proceed on an extended march to lead India onto the excessive desk of the worldwide community.

The President addressed the primary batch of 17 NIT students from throughout the nation collaborating in an ‘In-Residence’ programme at Rashtrapati Bhavan.

Mukherjee stated he was impressed by their willingness to tackle challenges with braveness and discover options.

“If the youth of our nation keep this spirit, India might be in a position to overcome all of the challenges that confront it. The individuals of India have waited for lengthy and the youth, are impatient. There is want to make haste and transfer ahead in the direction of our objectives with confidence,” stated Mukherjee.

He referred to as upon the NIT students to make the most effective use of the talents imparted to them by their establishments and plunge into the duty of reshaping the nation.

The President described the youth of at the moment as the brand new, IT savvy era and requested them to do their utmost for the event and progress of India. He described youth as the sunshine of our nation and referred to as upon them to fulfill their goals by marching forward with confidence and willpower.

Secretary to the President Omita Paul described the In-Residence programme as a cheerful expertise which provides confidence that the subsequent era is prepared to tackle the challenges of the longer term and is considering in the fitting course.

All the students addressed the President and spoke of their goals for India. Many stated they appeared ahead to seeing India as a developed nation, main the nations of the world in analysis and know-how.

The students described their keep in Rashtrapati Bhavan as the best expertise of their lives and one thing they may always remember. They spoke concerning the want to be sure that India is protected for all, particularly ladies. It is a united nation the place schooling and know-how is obtainable and accessible to all.

They spoke about constructing an India free from poverty, inequality and exploitation. Some of the students volunteered to undertake villages close to their establishments and to work for the betterment of the individuals. They additionally emphasised the significance of giving again to society and making India cleaner and greener. Some highlighted the necessity for world class infrastructure, sustainable improvement, utilization of the demographic dividend and safety of setting.

Scholars from the North-Eastern a part of India highlighted the necessity to combine North-East with ASEAN nations.

The NIT students stated their keep in Rashtrapati Bhavan had crammed them with a way of patriotism, braveness and the desire to work exhausting.

Meeting the President and interacting with him impressed them to dedicate themselves to the progress of the nation. They promised to contribute their greatest to the constructing of a more moderen and higher India.

The NIT students stayed in Rashtrapati Bhavan from April eleven to April l7, 2015 as a part of the In-Residence programme. Their actions included interplay with Ministry of HRD officers, visits to native industries, IIT Delhi and NIT Delhi in addition to an interactive workshop on the Rashtrapati Bhavan.

The in-residence programme for NITs was introduced by the President on the annual Conference of administrators of NITs held in October 2014. Similar programmes exist already for writers, artists and grass root innovators. The similar might be prolonged to impressed academics from central universities quickly Full Text RSS Feed

AMU dumping ground for retired generals, bureaucrats?

http://timesofindia.indiatimes.com/city/agra/AMU-dumping-ground-for-retired-generals-bureaucrats/articleshow/46944968.cms

Aligarh: Aligarh Muslim University (AMU) grapples with questions over validity of its own vice chancellor Lt Gen Zameer Uddin Shah and pro VC Brig S Ahmad Ali's appointment. Their appointments stand challenged in the Allahabad high court, (to be heard on April 16) on the grounds that the appointment of VC is not in line with the UGC Regulations 2010, according to which, a Central University VC should have ten years of teaching experience. The University defends its appointment because it is in line with the AMU Act.

The petition was filed by an AMU alumnus, Syed Asrar Cheeku, in October 2014. A university source said if the court rules in favour of the petitioner, the varsity's administration would approach the Supreme Court. If the apex court also rules against their appointment, the human resource development ministry will step in and review the matter, he said.

The source added that according to the Supreme Court, the institutes funded by the UGC are liable to follow the UGC regulations, even if they have their own Act. AMU is funded by UGC.

Speaking with TOI over phone, Cheeku said, "This case is not against any person but about imposition of the UGC regulations of 2010. A person with an academic background will understand the university and its functioning better as compared to a retired officer, who will not be able to meet the expectations of a researcher or a doctorate."

AMU professor Asmer Beg said if persons from non-academic background were interested in academics and serving its cause, they should join as teachers and professors, while still in service, to guide students and not just eye the top posts in the institute. "Why is their interest in serving academics limited to occupying the VC's position and that too after they

have completed their tenures in their respective services?" he said, adding that exceptions should not be made for retired civil servants, foreign service officers and army officers.

Beg also said that the VC's office had legislative, executive and judicial powers in the university and it is probably this unbridled power that attracts retired officials to the post. "The greater challenge for the UGC would be to try to make the office of the VC more accountable. Absolute power leads to arbitrariness and it is not judicious to trust one individual, howsoever good and talented, with so much power. Rule of law and not of the VC should be institutionalized in the universities," he said,

However, Faizan Mustafa, former AMU registrar and currently the VC of Law University in Hyderabad, said there was nothing wrong with non-academic persons being given top posts in universities. "Leaders from all walks of life should be eligible. Professors should be given priority but a good non-academic should not be excluded at the eligibility level. Let him compete with professors in leadership qualities," Mustafa said.

"G Parthasarathy, a diplomat, was VC of Jawaharlal Nehru University. So was KR Narayanan, who subsequently became the country's President. Vice President Mohd Hamid Ansari was Vice-Chancellor ofAMU," Mustafa added.

He said that some of AMU's most successful VCs have been bureaucrats, notably Badruddin Tyabji, Syed Hamid, Hashim Ali, M Rahman and Naseem Ahmad. At present, there are several VCs who are retired civil servants or army officers. "General Zaki had a remarkable tenure at Jamia Millia Islamia. AMU has General Shah as its current Vice-Chancellor and he has helped the university improve its rankings," Mustafa said.

The AMU administration has defended the appointments, citing requirements mentioned in the AMU Act.AMU public relations officer Rahat Abrar said, "AMU has an Act, according to which there is no problem in the appointment of the VC and pro VC."

According to 19(1) clause of the Act, the VC shall be appointed by the visitor in such manner as may be prescribed by the statutes. According to the statutes, the vice chancellor shall be appointed by the visitor from a panel of at least three persons recommended by the court and from a panel of five persons recommended by the executive council. The pro VC will be appointed by the executive council on the recommendations of the VC on such terms and conditions as laid down in the ordinances.