IITs are working fine, why fix them?

In the course of the last four months the IITs saw the resignations of IIT-Delhi director R.K. Shevgaonkar and IIT-Bombay director Anil Kakodkar. Dr Kakodkar, a nuclear scientist, has only been persuaded to stay on till his term runs out in May. Considered the foremost institutes of technical learning in India, the IITs seem to be in danger of losing people with vision who have guided it towards maintaining the standards of academic excellence that have made them instantly recognisable in many parts of the world.

Prima facie, it appears the issue is to do with HRD minister Smriti Irani, whose style of governance may be different from what academicians may have grown accustomed to. Far from any ideological inputs that may stem from a change of government at the Centre, it appears the most recent issue concerning Dr Kakodkar is to do with the selection process for the directors of three IITs. However, the larger issue of interference in the autonomous functioning of the institute may have also contributed to Prof. Shevgaonkar's resignation.

The talk in academic circles is that a system known to be working well enough in overseeing the appointment of directors was being subverted in the name of head-hunting by which too many candidates were being called for final interviews instead of following a tested filtering process. As head of the search committee, the HRD minister plays a pivotal role. How the selection process is being handled in the appointment of directors of IITs in Patna, Bhubaneswar and Ropar has caused the latest upheaval.

Ideally, the choice of personnel and of the courses offered and the academic terms for them are to be decided by the board of governors and the directors of individual IITs. The need to keep such academic matters insulated from government interference was generally respected through the history of the IITs, although, given the personality politics of selection within the academic community, such matters were also the subject of heated debate.

Even for the sake of argument it cannot be assumed that previous governments did not interfere in the process of appointing key IIT directors and the board of governors. But it would be fair to say that there was never any overt move to tinker with the autonomy of the IITs or to dictate their education policy. The system has worked fairly efficiently over time despite corruption charges and claims of recruitment rackets. The fact remains that the IITs have represented a fertile ground for educating and shaping young talent by imparting the importance of knowledge and innovation, besides text-book teaching. The IITs have served what the Kakodkar Committee calls India's education-research-technology-innovation-entrepreneurship ecosystem. The minister cannot afford to upset an up and running process of excellence.
हाइड्रोजन से चलेंगे दस लाख वाहन
2020 तक हाइड्रोजन से 1,000 मेगावाट बिजली उत्पादन का भी लक्ष्य

राजीव कुमार

नई दिल्ली। नवीन व नवीकरणीय ऊर्जा मंत्रालय (एमएनआरई) ने वर्ष 2020 तक देश की सड़कों पर हाइड्रोजन गैस से चलने वाले दस लाख वाहनों की उत्पादन का लक्ष्य रखा है। अगले पांच वर्षों में हाइड्रोजन से 1,000 मेगावाट बिजली उत्पादन का भी लक्ष्य रखा गया है। इस लक्ष्य को सफल बनाने के लिए हाइड्रोजन के मूल्य में कमी व उत्पादन में बढ़ोतरी को लेकर सरकार को तफसील से कई प्रकार के अनुसंधान भी किए जा रहे हैं।

अभी हाइड्रोजन को कीमत प्रति किलोग्राम 200 रुपये से अधिक बैठा है। वर्ष 2020 तक हाइड्रोजन की कीमत को 60-70 रुपये प्रति किलोग्राम तक लाना का प्रयास किया जा रहा है ताकि हाइड्रोजन से चलने वाले वाहनों की व्यवसायिक बनावट जारी रहे। हाइड्रोजन और आईआईटी दिल्ली ने हाइड्रोजन से चलने वाले विपिन विधाय मिश्र ने हाइड्रोजन की बिकासित किया है। महिंद्रा एंड महिंद्रा ने हाइड्रोजन व डीजल दोनों प्रकार के इंजन से चलने वाले वाहनों की भी विकसित किया है। आईआईटी दिल्ली हाइड्रोजन से चलने वाले जेटेंटर सेट पहले ही विकसित कर चुका है।

एमएनआई मंत्रालय के मुख्याधिकारी अगला पांच साल में हाइड्रोजन से चलने वाले 7.5 लाख दोपहियां व तिबरियां वाहन, 1.5 लाख कार व टैक्सी तो एक लाख बस व डिंगो के देश की सड़कों पर चलने का लक्ष्य रखा है। इसके बाद ही वायु स्रोतों का हाइड्रोजन गैस पर लाने की योजना है। जब हाइड्रोजन धारकों की कीमत प्रतिस्पर्धा आर्थिक रूप से बदल गई तो हाइड्रोजन के स्रोतों में प्रवर्तित किया जायेगा।

हाइड्रोजन की कीमत में कमी व उच्चतम बढ़ते ही कीमत प्रतिस्पर्धा आर्थिक रूप से बदल गई तो हाइड्रोजन के स्रोतों में प्रवर्तित किया जायेगा।
UGC has failed, scrap it, says HRD panel

New Delhi: One of the first committees set up by HRD minister Smriti Z Irani to review the working of the University Grants Commission (UGC) has said the regulator has not only “failed to fulfill its mandate but also has not been able to deal with emerging diverse complexities” and should be replaced by a National Higher Education Authority.

Headed by former UGC chairperson Hari Gautam, the committee has said any “restructuring” of UGC will be a “futile” exercise, as will be amending the UGC Act. Therefore, it has recommended the setting up of a new authority through an act of Parliament and prepared a draft bill. Till such time a body is set up, the panel says, the HRD ministry can bring about changes in UGC through executive order.

Ministry sources said the recommendations were “far-reaching” and “will be looked into seriously”. Among the committee’s other suggestions are a national research aptitude test for PhD admission and teaching of yoga and transcendental meditation.

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Nix 10-yr rule for profs to be VCs: HRD panel

The HRD committee also recommends doing away with the 10-year criterion for professors to become vice-chancellors.

The two-volume report submitted by the committee to the ministry says UGC is “plagued in the main by reductionism in its functioning”.

“It (UGC) has side-stepped its function of being a sentinel of excellence in education and embraced the relatively easier function of funding education.”

The report says the UGC staff is unhappy as only “few find favour and are delegated with powers to perform in important areas while many of them are left out with hardly much to contribute.”

Committee says the UGC chairperson “should be advised to strictly keep a vigilant track of the various performance areas” and “assess the contribution at all levels”.

The chairperson, it adds, should spend more time in his “seat” than go around the “country and the world on occasions that have not much relevance for the system he governs”. The committee has recommended that the chairperson’s performance be assessed once after three years and then at the end of his tenure of five years by a committee constituted by HRD.

For the full report, log on to www.timesofindia.com

Comet dust coating turns Mercury dark

Adam Lusher

The planet Mercury has long enjoyed a certain glamorous sheen thanks to it being named after the fleet-footed messenger of the Roman gods.

Now, however, it seems in danger of gaining an altogether less appealing association — as a celestial reminder of what happens if you don’t keep up with the dusting.

American scientists believe they have solved the mystery of why, compared with the Moon, its nearest airless neighbour, Mercury has a dark and decidedly non-silvery surface. The reason, they say, is that the planet is coated in billions of years’ worth of carbon dust, after millennia upon millennia of being “dumped on” by passing comets.

The repeated showers of dusty “stealth-darkening agent”, they suggest, have in effect turned Mercury into “a painted planet”.

The dim surface of the planet closest to the Sun, has long puzzled astronomers. Since it has the thinnest atmosphere of all the planets in the solar system, one possibility was that it was darkened by the effects of solar winds and the impacts of micro-meteorites.

Both processes, however, would leave a thin, dark coating of tiny, dark iron particles, and analysis found that there were in fact very few such particles on Mercury’s surface. THE INDEPENDENT
ई-लर्निंग के जरिये घर बैठे कार्य
आईआईटी जैसी पद्धार

आधुनिक तकनीकों की पद्धति के लिए अपने संस्थान में ही दक्षिणा जानी वाली है। एमपायरीएल आपको घर बैठे उच्चतर संस्थानों के प्रोफेसरों से पढ़ने में मदद कर सकता है।

एमपायरीएल एक ऐसा मंच है, जो सबसे अच्छी तरह से रुचिकर मंच के प्रोफेसरों से कंप्यूटर के माध्यम से पढ़ने की मौलिक योजना देता है।

आज इसके भाषण में जुड़ेंगे से रुचिकर मंच के प्रोफेसरों के साथ सहभाग करने के लिए ऐसे विद्यार्थी जो की अपने कार्य के लिए सीधी राह मिलेगी।

एमपायरीएल लागू करने के लिए सिर्फ एक तरफ से रुचिकर मंच के प्रोफेसरों से अभ्यास पत्रकारों से भी जानकारी मिलेगी।

इस तरह से अपने अध्यायों के साथ-साथ आपने अपने डिग्री के लिए सीधी राह बनाने की सीमा जानकारी मिलेगी।

इस तरह से अपने अध्यायों के साथ-साथ आपने अपने डिग्री के लिए सीधी राह बनाने की सीमा जानकारी मिलेगी।
आनंद की जीवनी जल्द

आर्थिक रूप से कमजोर बच्चों का भारतीय प्रौद्योगिक संस्थान (आईआईटी) में पढ़ने का सपना सच कराने वाली संस्था ‘सुपर 30’ और उसके संस्थापक गणितज्ञ आनंद कुमार के जीवन पर आधारित एक पुस्तक जल्द ही प्रकाशित होगी। इसके लिए आनंद ने यहां पर प्रकाशक पेंगुइन रैंडम हाउस के साथ एक करार पर हस्ताक्षर किए हैं। पैसे के अभाव में आनंद कुमार अपने छात्र जीवन में भले ही कैम्ब्रिज विश्वविद्यालय में दाखिला नहीं ले पाए हैं, लेकिन इस वाकये ने कितने ही निर्धन बच्चों के सपनों को अवश्य पूरा किया है।

आनंद की प्रेरणादायी कहानी को पुस्तक का रूप देने के लिए पिछले तीन वर्षों से कनाडा के लेखक डॉ. बीजू मेध्यू प्रयासरत थे। मेध्यू द्वारा लिखी गई इस पुस्तक का संपादन राबर्ट प्रिंस ने किया है। इसके अलावा पटना के वरिष्ठ पत्रकार अरुण कुमार ने पुस्तक लेखन में सहयोग किया है। इसे पेंगुइन रैंडम हाउस द्वारा प्रकाशित किया जाएगा। अरुण बताते हैं कि पिछले तीन वर्षों से मेध्यू लगातार पटना आते रहे और उन्होंने सुपर 30 पर शोध ही नहीं किया, बल्कि इस संस्थान से पढ़े कई निर्धन बच्चों के घर भी गए।
UGC का निर्देश, हो एनवायर्मेंट स्टडीज पर फोकस
मिशन वन स्टूडेंट-वन ट्री

शून्यस्थिति प्रांतन्त्र कमिशन (यूजीसी) ने देश भर की 706 यूनिवर्सिटीज को निर्देश दिया कि एनवायर्मेंट स्टडीज पर फोकस किया जाए। यूजीसी ने यूनिवर्सिटी में पढ़ने वाले स्टूडेंट्स के लिए वन स्टूडेंट- वन ट्री कॉन्सेप्ट लागू करने को कहा है। हर स्टूडेंट कम- से-कम एक पेड़ जंगल लगाए और पूरे साल से स्क्रिन भी देखे। यूनिवर्सिटी और उससे जुड़े हर कॉलेज में यह शिक्षण शुरू करने का कहा गया है और इसकी रिपोर्ट से मांगी गई है।

यूजीसी ने यूनिवर्सिटी प्राप्ति को स्पेशल प्लानेशन जारी करने के निर्देश दिये हैं। यूनिवर्सिटी की जिम्मेदारी होगी कि स्क्रिन इस जारी में हर हाल में हिस्सा ले। पर्यावरण को लेकर पौधों की पोषण और पौधों का स्वास्थ्य तैयार करना भी यूनिवर्सिटी की जिम्मेदारी होगी।

यूजीसी का कहना है कि यूनिवर्सिटी में स्क्रिन में स्टडीज को लेकर क्षेत्र महाने का कोर माइक्रोसिस्टम के साथ-साथ उस पैड की भी देखी जाने का कहा है। यूनिवर्सिटी और कॉलेज इस आदेश को नहीं मानेंगे, उनके बिना एक शुरू किया जा सकता है। यूनिवर्सिटी को अधिकारिक उम्मीद की जा सकती है कि यह अदालत के आदेश के दौरान से अवसर पा सके।

यूजीसी का कहना है कि पर्यावरण का एक बड़ा मुद्दा है और एनवायर्मेंट हॉलोडायशन की यह जिम्मेदारी महत्वपूर्ण है कि पर्यावरण को बचाने के लिए हरसंभव कोशिश की जाए।
Five scientists from IISc receive prestigious award

To commemorate the 50th year of independence, government of India had introduced 'The Swarnajayanthi Fellowships' in 1997 to encourage scientific research. Out of the 11 scientists selected from across India for the prestigious Swarnajay-anti fellowships (2013-14), five scientists — Aninda Sinha, Satish Patil, Saptarshi Basu, Gautam Bharali and Navin Kashyap are from Bengaluru's own Indian Institute of Science.

The fellowships given by the Department of Science and Technology includes, in addition to their salaries, a remuneration of `25,000 per month for up to five years. The fellowship also covers all the requirements for conducting research including grants for equipment, computational facilities, consumables, contingencies, national and international travel and other special requirements.

Gautam Bharali is an associate professor in the Department of Mathematics. He works on 'Several Complex Variables' and 'Complex Dynamics'.

Saptarshi Basu, an associate professor in Department of Mechanical Engineering, works on understanding turbulent flow, which has massive industry applications like preventing engine stalls in gas turbines and making engines more efficient.

"To understand how nature works, we need to get to the basics. I try to understand its framework by going into the microscopic working, studying subatomic particles to understand phenomenon like gravity better," explains Aninda Sinha, a theoretical physicist and a faculty member at the Centre for High Energy Physics, who tries to decipher nature through string theory.

Satish Patil, an associate professor at the Solid State and Structural Chemistry Unit, has also received the fellowship for his work on synthesis of new materials from solar cells to biodegradable polymers for drug delivery and 'organic electronics'. The fifth awardee, Navin Kashyap, an associate professor in the department of Electrical Communication Engineering, focuses his research on coding for data communication, data storage and information theory.

Father-son Nobel Laureates and the Raman connect

BLURB: Hundred years ago, the Nobel Prize in Physics was awarded to the father-son duo, William Henry Bragg and William Lawrence Bragg, for X-ray analysis of crystal structures. At that time (in 1915), William Lawrence Bragg was all of 25. Born on March 31, 1890, he remains the youngest-ever Nobel Laureate in Physics. Interestingly, it was William Bragg who appointed Sir CV Raman as director of the Indian Institute of Science (IISc), Bengaluru, on this day in 1933. IISc scientist Sharath Ahuja traces the coincidence in an exclusive article for TOI.

It all began with the chance discovery of X-Rays (X-standing for the unknown) by Professor Wilhelm Roentgen in Germany on November 8, 1895. Called X-rays, because they are 'light rays', about a thousand times shorter in wavelength than visible light, they are invisible. On hearing about Roentgen's discovery in the first few months of 1896, William Bragg (in Adelaide) and Thomas Lyle (in Melbourne) produced X-ray images (radiographs) and even made X-ray tubes.

Nobel Prize in Physics 1915
It was around 1912 that the father and son read a scientific note by German physicist Max Von Laue, who suggested that X-rays could be diffracted by passing them through crystals. For this work Laue was awarded the Nobel Prize in Physics, in 1914. Working in Cambridge, England, a young Lawrence believing that Laue's explanation was incorrect in its details, carried out his own set of experiments, as a result of which he published the now famous Bragg equation: \( n\lambda = 2d \sin \theta \). This equation is basic to X-ray diffraction, a process used to analyze crystal structure by studying the characteristic patterns of X-rays that deviate from their original paths because of the closely spaced atoms in the crystal. He also showed that in rock salt the two kinds of atoms, sodium and chlorine, are arranged alternately so that atoms of the same element never touch each other.

Meanwhile, his father designed the X-ray spectrometer, a device to make exact measurements of X-ray wavelengths. The two scientists spent vacations using the Bragg spectrometer to determine many other atomic arrangements, including that of Physics that had been revolutionized by Roentgen's and Laue's discoveries and then forwarded by the work of the Braggs. William and Lawrence's joint work in 1912 was recognized in 1915 when they were awarded the Nobel Prize for Physics, '... for their services in the analysis of crystal structure by means of X-rays'.

William Henry Bragg and Bengaluru

The selection committees appointed by the council of the Indian Institute of Science, in July 1931, called for applications to the post of IISc director. Of these, the English committee in England was convened and chaired by Nobel Laureate Sir William Bragg and had Sir William Pope and Sir Robert Robertson as the other members. By May 1932, 20 candidates had sent in their applications to the English committee in England. It is interesting to note that CV Raman's name was not on the list, according to records available with the archives and publications cell of IISc. The English committee headed by Nobel Laureate Sir William Bragg, unanimously proposed Raman's name to the IISc council as the best candidate for the director's post. Raman was appointed director on March 31, 1933, a position that would fall vacant by April 1, 1933, when Prof Martin Onslow Forster's directorship at IISc was to end. Raman was the first Indian to be the director of IISc.

Leadership Crisis In IIMs Across The Nation

http://jobs.siliconindia.com/career-news/Leadership-Crisis-In-IIMs-Across-The-Nation-nid-180824.html

BANGALORE: There are so many who quit their jobs just to pursue a degree from IIM. Some dream for IIM and finally fail to achieve it. The would-be IIMs will be shocked to hear that today IIMs are facing real challenges in their professional lives. IIMs in Ranchi, Kozhikode, Lucknow and Raipur are having vacancies in the director’s profile. The hunt is on, yet only one could be placed till now.

"No one wants to be a director today," says a former IIM director. "The institutes are facing a governance issue, which includes political and government interference. The faculty takes pot shots at directors. There is a lot of blame game. This is hurting the momentum," he adds. Successful academicians from IIM consider leadership struggles, government and political interference, lack of succession planning, low pay scale, remote location and absence of clear mission as core reasons for IIM distraction in such job profiles.

Since 2010, IIM Ranchi is functioning as a two storey building. The human resource department announced the development of six new IIMs, though none has come into existence till now.

"There are many challenges in developing new IIMs. A close industry interaction is a must for budding managers. Institutions established in remote parts of the country will face tough challenges on that front," says Prof MJ Xavier of IIM Ranchi.