Newspaper Clips
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India needs more technology start-ups: IIT-Delhi director

http://timesofindia.indiatimes.com/city/delhi/India-needs-more-technology-start-ups-IIT-Delhi-director/articleshow/51928051.cms

New Delhi, April 21 (IANS) More technology-based start ups are needed in India to create inventions to help enhance the quality of life of the people, V. Ramgopal Rao, director of the premier IIT-Delhi says.

"One thing which needs to happen in the country is more technology start ups. There are a lot of start up companies in India but many of them are e-commerce based," Rao told IANS as the institute prepares to host on April 23 its 12th Open House that gives an insight into the massive research work happening on the campus.

"The technology start-ups will actually create inventions. They have the potential to boost agricultural productivity and can add to the wealth of the nation," he added.

The Open House is set to feature over 20 "high societal impact" projects along with 500 research projects and 80 demo projects.

"Among some of the projects to be showcased at the Open House, the technology can be bought by people and help enhance the quality of life. Technology-based entrepreneurship, product development still hasn't been taken up in India in a big way," Rao noted.

Rao said that an ecosystem needs to be created for those who create technology-based products.

"When a person creates such a (technology-based) product, he takes it to the market. One way is to license it to a company which is already in that space, but it may not always be possible

If a researcher wants to start such a company, the person would want to scale up production facilities which requires investment. For this you will need vice chancellors to support you. This technology incubation is where we (IIT Delhi) are going to put emphasis now."

The director also said events such as Open House will help connect institutes like IITs with the society.

"I see a lot of hope (through such events). The activities have already begun in that direction. IITs are doing research, publishing papers, but we're not connecting strongly enough with society. But now it seems that things are beginning to happen," Rao said.

On the fewer number of women in the field of science and research, Rao said: "I am ashamed over the ratio of female researchers to male researchers at the IIT campuses. There are not even many women in the leadership position in the country right now. This is not a good sign. At IIT Delhi we have actually consciously asked why is that we don't have dean who are women. We have to address this issue."

http://paper.hindustantimes.com/epaper/viewer.aspx

PSUs return to IIT-Bombay with plum jobs

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MUMBAI: The second phase of placements at Indian Institute of Technology-Bombay (IIT-B) got a boost with public sector companies returning to the campus after a hiatus.

Government companies had stopped visiting the campuses owing to the Madras high court order, which has now been stayed.

As a result, the IIT-B placement cell has approached a series of companies from the government sector. Until Thursday, HPCL and Coal India had conducted interviews and offered jobs to around 20 students on campus and the salary packages offered have been around Rs 10 to Rs 12 lakhs per annum.

"The second phase of hiring is anyway a slow process but now that there is no ban on PSUs hiring from IITs, we are hopeful that more companies will come on campus and make job offers," said Atul Shukla, placement manager for IIT-B.

He added that while till last year only one company, Coal India, had come on board to offer jobs to students, this year, two firms have already hired students and they are hoping to bring more interested PSUs to the campus.

Government-run companies hiring from the IITs and the IIMs had stopped temporarily following a petition filed in the Madras high court in 2014.

The petition sought a ban on public sector companies opting for campus placements at private institutes, thus, eating into chances of students from other government institutes vying for the same jobs. This ban was finally lifted in December 2015, giving private institutes a free hand to approach more companies.

"There's no way that a court can hold PSUs from hiring students from private institutes, because in no way is the constitution violated. Even when there was a ban on them hiring, we've had one or two PSUs approaching the institute and have also hired a handful of students. This year, what is even more encouraging is the fact that they are matching pay scales with other private companies," said a IIT-B senior official.

BPCL and Coal India has also hired students from IIT-Gandhinagar and IIT-Delhi this year.

WHY WAS THE BAN?

A petition filed by a Kerala-based advocate contended that PSUs should not disregard job notifications and reservation policy rules governing them; that no recruitment could be done without affording equal opportunity to all eligible candidates. The petitioner stated that holding campus recruitments in private institutions was against public employment policy and sought the cancellation of all such recruitments that had already been made and against Article 16(1) of the Constitution of India.

WHAT IS ARTICLE 16(1)

There shall be equality of opportunity for all citizens in matters relating to employment or appointment to any office under the state

CURRENT STATUS

While the Supreme Court in May 2008 upheld the decision of the Kerala high court not to interfere in PSUs hiring from campus placement programmes in private institutes, another petition was filed at the Madras high court in 2014, seeking a ban on PSUs hiring from private institutes, following which a temporary stay was put in place by the court.

IITs and IIMs had also received an informal circular from the HRD ministry not to encourage PSUs during campus placements. However, this stay by the Madras high court was finally lifted in December 2015 and the IITs are now approaching more PSUs to hire students from their campus.

Mumbaikars get more water than they require daily, says IIT study

http://timesofindia.indiatimes.com/city/mumbai/Mumbaikars-get-more-water-than-they-require-daily-says-IIT-study/articleshow/51936128.cms

Mumbai: Every Mumbaikar gets more water than what IIT Bombay has scientifically worked out is needed in the city per person.

So, while BMC supplies (depending on the topography) between 100 and 307 litres per capita per day (lpcd), the IIT pegs the requirement at 62 lpcd.

Professor Kapil Gupta of the department of civil engineering, IIT, Bombay , in view of the current water crisis in the state, asked his students to work out how much water a person needs on a daily basis."The water being supplied to Mumbai comes from over 100 km away , it is treated at the Bhandup filtration plant and then distributed. It is high time citizens realize the distinction between how much water they want and how much is actually needed. The figure that we arrived at is far less than what is recommended by government bodies," he pointed out.

The IIT study underlines the need to use potable water judiciously , and to use alternative sources such as borewell and treated water for flushing, gardening and washing vehicles.

Gupta said that in the 1990s, the Central Public Health and Environmental Engineering Organisation (CPHEEO) had recommended 135lpcd.

The Union ministry of environment and forests, in its norms and standards for environmental clearance of large construction projects, estimates the use of water at 86 lpcd.

In both cases, the water for human consumption is estimated at 7 litres, while the bulk is utilised for flushing and

washing. The civil engineering students were asked to scientifically work out how much water a person would need considering the technologies now available for more efficient use of water.

"In the 1990s, the CPHEEO had recommended 135 lpcd for urban areas. However, this figure dates back to the time when toilet flushing tanks were of 12.5+ litre capacity . Nowadays, 3.5 litre flushing tanks are seen, and they have the same flushing efficiency . The overall requirements can easily be reduced," said Gupta.

So the figures worked out by the 150-odd students show that human beings, on an average, consume 8-10 glasses of water, the water requirement for drinking and cooking has been brought down to 5 litres from 7 litres, for flushing it has been reduced to 10 litres (MoEF recommends 21 litres), for bathing it remains constant at 20 litres, for washing it is 10 litres down from 15 litres and for miscellaneous it is down to 11litres from 23 litres.

Bharatiya Janata Party legislator from Charkop, Yogesh Sagar, has raised the need for water metering for more than two decades; first as a corporator and now as a member of the Legislative Assembly .

"Mumbai loses 850 million "Mumbai loses 850 million litres daily what is referred to as unaccounted water, and the government spends crores to ferry five lakh litres daily to Latur. Our water comes from 100 km away . Where is our sense of balance?" he asked.

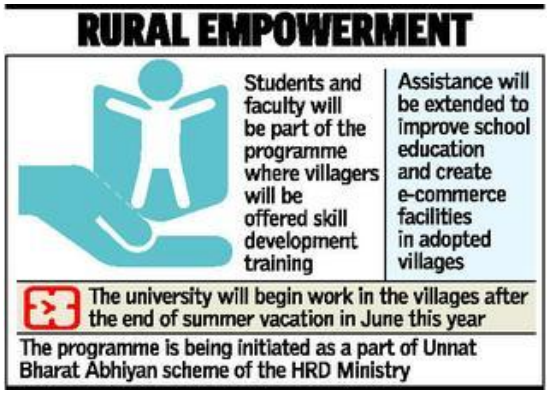
Sagar said citizens must be made to pay for every litre that they consume. "Just like you pay for the gas, electricity and petrol you consume, pay for water too," he said.

Gupta said the issue needs to be tackled on an urgent basis if "we do not want an urban water crisis too."

EFLU to adopt five villages in Telangana

http://www.thehindu.com/search/simple.do

After IITs and NITs, it will become the first university to be part of Unnat Bharat Abhiyan initiative in the country



Students of English and Foreign Languages University (EFLU) will have to show their concern for rural areas and contribute their mite to empower the rural folks with the university deciding to adopt five villages in Telangana.

Students and faculty will be part of the programme where villagers will be offered skill development training. Assistance will be extended to improve school education and also create e-commerce facilities in the adopted villages. The villages to be adopted include Nidigonda in Warangal district, Eddu Mailaram and Nandikandi in Medak and Taramatipet and Ibrahimpatnam in Ranga Reddy district. The university will begin work in the villages after the end of summer vacation in June this year.

The programme is being initiated as a part of Unnat Bharat Abhiyan (UBA) scheme of the Ministry of Human Resource Development (MHRD) started two years ago where the IITs were asked to connect with villages and improve their living conditions using technology and education as tools and also expose students to the challenges of rural life creating model villages.

“Till now IITs and NITs only have adopted villages as part of the UBA programme and EFLU will become the first university to be part of the initiative in the country,” said EFLU Vice-Chancellor, Sunaina Singh.

“Our students are extremely talented and as an institution it is our responsibility to use their talent for betterment of the society.”

On the controversies surrounding the university, she said the phase of agitations is over on the campus and academic achievements are on the rise. As many as 12 teachers and scholars bagged the prestigious Fulbright scholarships during the last four years while staff and students have also bagged five French government fellowships and an equal number of European fellowships during the last four years, she informed.

At the same time, university academics have also bagged four major research projects each worth about Rs. 35 lakh from the Indian Council of Social Science Research (ICSSR) apart from projects from the Department of Science and Technology (DST) and University Grants Commission all worth around Rs. 1 crore.

Prof. Singh, who is the first woman V-C of the EFLU, agreed that students within the varsity tend to have differences on various issues concerning the society, but that shouldn’t affect overall academic atmosphere.

“To restore the academic and research atmosphere in the campus, a record number of 21 students were given financial assistance to go abroad and present their papers at the international seminars,” she said claiming that confidence among students has been restored with the new initiatives.

Digitization can help check plagiarism in research

http://www.tribuneindia.com/news/chandigarh/education/-digitisation-can-help-check-plagiarism-in-research/225886.html

The digitization of research work can check plagiarism as five to six such cases have been reported by the Information and Library Network Centre (INFLIBNET), an autonomous body of the inter-university centre of the University Grants Commission (UGC) in the past one year.
Dr Jagdish Arora, Director of the INFLIBNET, disclosed this during a programme organised to launch the uploading of doctoral theses on the Shodhganga, a digital repository, at Panjab University today.

Sharing details about the funds the INFLIBNET provided to various universities in the past five years for the digitization of their records, he said around 250 universities had signed a memorandum of understanding (MoU) with them for the purpose and 100 of these had been provided funds by the centre.

Refereeing to Delhi university and Jawaharlal Nehru University, he said these universities were the only educational institutes who promptly responded to any scheme of the University Grants Commission launched through the INFLIBNET while the rest of the educational institutes were going slow.

Panjab University Vice-Chancellor Arun Kumar Grover said all research papers of city colleges and the colleges belonging to the Chandigarh Region Innovation and Knowledge Cluster (CRIKC) should be digitized and made available online for research scholars.

The Panjab University Vice-Chancellor proposed that the company that digitized the university library theses should chalk out a proposal and share it with the institutes for its execution. Referring to the research papers authored by PGI doctors, he said a majority of these remained unpublished.

Proposal for Senate, Syndicate records

Panjab University Vice-Chancellor Arun Kumar Grover said they were planning to digitize all records of the Senate and Syndicate and they had asked a company to prepare a detailed plan for this.

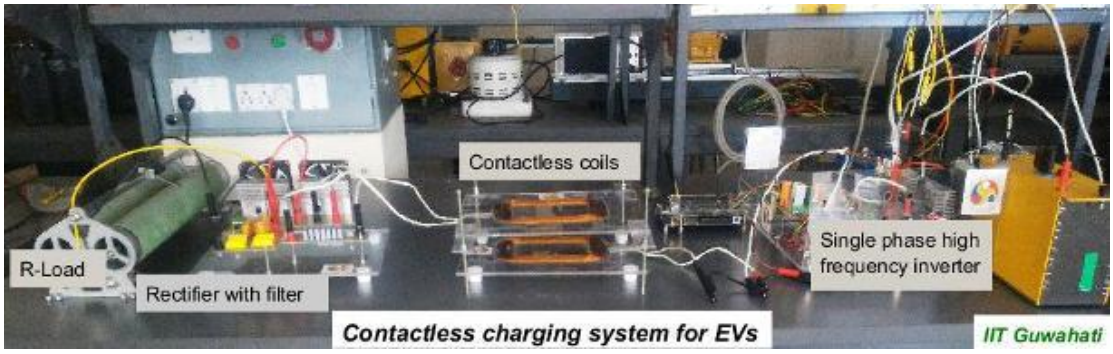
IIT Guwahati develops innovative electro mobility solutions

http://www.pagalguy.com/articles/iit-gandhinagar-harnesses-solar-energy-on-its-palaj-campus-42556625

Far away from New Delhi, where the FAME (Faster Adoption and Manufacturing of (Hybrid &) Electric Vehicles India) policy was framed and announced exactly a year ago, a group of engineers is busy at work at IIT Guwahati on a concept that could give a big leg up to the e-mobility drive in India.

If the project passes all the final tests and the FAME policy gains traction, we will soon be able to travel in electric city buses that get charged automatically at every bus stop. “One of our major projects is inductive charging or contactless charging. This is one technology we are working on quite aggressively,” Dr Praveen Kumar, associate professor, IIT Guwahati, told *Autocar Professional*.

Commercial vehicles, especially the ones that ply within the city, offer the maximum potential for green technologies to make a positive impact on the environment, more so in the metros where the air quality is worse than in many other places. Not surprising then that Dr Kumar, along with his team, has developed a system for intra-city buses.



Called 'Purta', it is a smart city bus transit system concept that uses on-board super capacitors and a grid connected energy storage system. Instead of taking power directly from the electricity distribution network, this system proposes to use large-capacity batteries installed at bus-stops as indirect sources of power supply. These batteries will charge themselves during off-peak hours when the load on the distribution network is low and will act as charging stations for the buses during peak hours. The concept also proposes installation of solar photo voltaic panels throughout the bus transportation route. This apparently will be able to meet "at least" 30 percent of the power requirement of the transportation system. In addition, the batteries in the bus-stops can also supply power to the grid during peak demand hours.

The super capacitors in the electrical system can store up to about 4kwh. And this level of charge can be achieved in a matter of a “couple of minutes to 4 minutes”. With a single dose of charge in a stop, the bus can travel about three kilometres.

The concept is not only for intra-city buses. Dr Kumar says that it can be carried over to the entire public transport chain, which includes e-rickshaws to reach the bus-stop and to the final destination after alighting from the bus.

The Purta concept has been under development for four years now. It is part of the effort at IIT Guwahati to develop all systems of an electric vehicle. A control system is also under works that could help EVs to be more efficient. "The uniqueness of this system that we are trying to work on is that it would able to predict the batteries' state of health more effectively. That's a very critical parameter," says Dr Kumar. Once it is done for the battery, it can also be done for the capacitor.

Looking to reduce costs

The cost of components and systems has been the biggest hurdle in the way of electric vehicles, as most of them are imported. IIT Guwahati wants to indigenise EV components and systems or find alternate solutions in some cases and also collaborate with other Indian organisations to script a made-in-India EV story.

"All the critical technologies are imported. If we go for domestic design, the cost would be one-third or half of what we are paying now. By at least half in the case of critical components," says Dr Kumar.

The motor is one such component that the team is working on to bring down the cost of. BLDC motors or permanent magnet synchronous motors, which are also used in electric vehicles, contain rare earth magnets which make them very expensive. The effort is to replace the rare earth magnets with ferrite magnet which is much more affordable. But on the flip side, a ferrite magnet will barely have half the strength of a rare earth magnet. So, what is the solution to this problem?

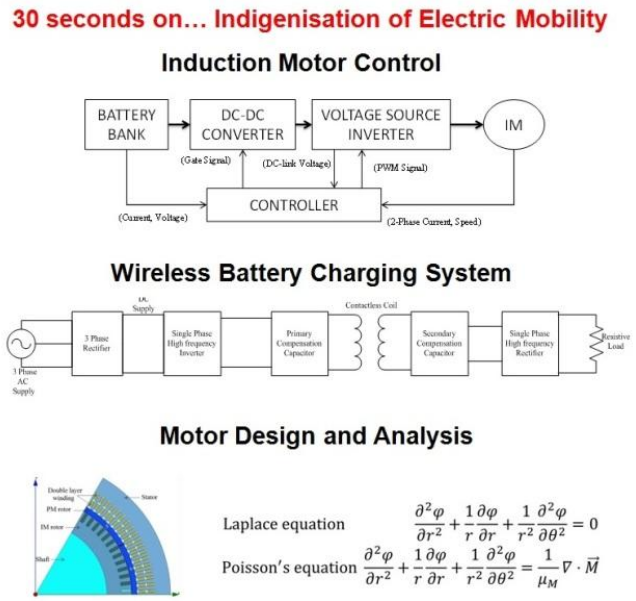
Ankit Dalal and Gautam Rituraj, research scholars who are part of the team, explain that the solution could be to increase the volume of the magnet. The other solution could be a combination of a ferrite magnet and a cage rotor which will induce magnetic field from a stator. The team would be satisfied even if 80-85 percent of the performance of rare earth magnets is achieved. "Even that would be good enough because we are then reducing our imports. Ferrite magnets are manufactured in India. We have the know-how of magnetising them, of handling such magnets. So, that reduces the costs drastically," says Dr Kumar. The team has been working for the past three years in this area, and is getting close to finalising the design of the motors.

Collaboration vital to drive Make in India EV tech story

India has proved her frugal engineering prowess on many occasions. the Mangalyaan mission being the best showcase. In the automotive industry too, there are examples like the Tata Nano which caught the attention of the global industry

and media. Dr Kumar believes that it is possible to build a prototype of a fully indigenised complete system for EVs, provided there is a combined effort by all stakeholders.

While the above-mentioned projects take shape in IIT Guwahati, it is learnt that the Indian Space Research Organisation (ISRO) has indigenously developed lithium-ion batteries and there are some serious developments on ultra capacitor and super capacitor technology taking place at the Central Mechanical Engineering Research Institute (CMERI), not to mention the R&D efforts in the laboratories of other such institutions, which the electric mobility industry can greatly benefit from.



For an industry which is yet to get on its feet, collaboration is key for technology development, growth and sustainability. "If all these technologies are put together, then we will truly have a made-in-India story. Not only that but actually something that is conceived, conceptualised, design and developed in India," says Dr Kumar.

Participation of vehicle OEMs and suppliers is crucial for the R&D and engineering efforts to move in the right direction. Researchers may be developing certain systems and technologies but some of them are 'missing' the complete knowledge of the full electric vehicle. On the other hand, OEMs and suppliers are looking for more cost-effective solutions to grow the market. This is where industry players can help researchers as well as provide support in the prototyping stage as well as in funding research which could yield good returns in the future.

IIT Guwahati has found an audience in the auto industry for its creations. It is now looking for collaboration to fully understand e-mobility to develop specific solutions.

Is India ready for electric vehicles?

Electronics is a key area of interest for Dr Kumar, who has had a stint in an AVL Group company in Germany before joining IIT Guwahati in 2009. Not surprising then that he is playing a key role in the development of technologies that the electric mobility industry would also benefit from. But there is an argument that in a country like India, where electricity is generated mainly at coal-based thermal power plants, electric vehicles do not look a good bet if one looks at the well-to-wheel picture.

Electric buses with super capacitors that get charged at bus-stops through contactless technology could be seen at Indian roads, if the Purta concept sees commercial production.

Dr Kumar sees it as a valid argument but also counters it by saying, “Today, the transportation system depends on petroleum products. We produce domestically maybe 20 percent of our demand (of fossil fuels). But if we shift to electricity, we can generate electricity using thermal, nuclear, hydel, wind, gas and solar. All that becomes fuel for a vehicle. So, we diversify the portfolio of fuels that we have to drive a vehicle. That’s a big advantage. Not just efficiency of well-to-wheel but the variety of fuels we can use to drive a vehicle. That’s a big bonus. I think that’s the argument.” The Indian government’s strong focus on developing renewable energy like solar power would also make people like Dr Kumar more hopeful about electric mobility.

As for the ride in a bus with technologies like super capacitors and contactless charging that are currently under development at IIT Guwahati, the day may not be too far away. Some OEMs have expressed interest in them at the Make in India Week held in Mumbai in February 2016.

IIT Gandhinagar harnesses solar energy on its Palaj campus

http://www.pagalguy.com/articles/iit-gandhinagar-harnesses-solar-energy-on-its-palaj-campus-42556625s

The Palaj campus of Indian Institute of Technology, Gandhinagar, has added another feather in its green cap by installing a solar energy plant.
The Grid Interactive Rooftop Solar PV Project has a current capacity of total 200 kWp, and it is expected to scale up the power generation to 500kWp in the coming months.

The electricity generated from the plant is distributed to academic blocks (80 kWp) and hostel buildings (120 kWp) in the Institute's campus.

In addition to generating electricity, this plant will act as a live research platform for students in the area of solar power generation forecasting and impact assessment of these distributed solar PV systems.

The Institute plans to instrument this plant with data acquisition and monitoring system which will complement its research initiatives.

Prof. Naran Pindoriya, Electrical Engineering, who spearheaded the project, is also working on distributed renewable energy integration. It is very much important to assess the impact of solar PV power injection in to the secondary distribution network of IIT Gandhinagar .

The rooftop solar PV plant at IIT-Gn has been funded by the Government of Gujarat.

MANIT director Dr.Appu Kuttan KK sacked

http://www.freepressjournal.in/manit-director-dr-appu-kuttan-kk-sacked/831576

BHOPAL : The services of MANIT director Dr.Appu Kuttan KK were terminated on Thursday. Ministry of Human Resources development (MHRD) ordered the termination.
He was on two months' leave and Nagpur NIT director Narendra S Chaudhary was holding the charge of director since February. But when he expressed his desire to rejoin, MHRD terminated his services.

Appukuttan was appointed as director of MANIT for five years on September 6, 2011. His contract was about to expire on September 6, 2016.

For the past few couple of months, he was at loggerheads with the institute's board of governors (BoG).

He was allegedly involved in irregularities in construction work including academic block. Professor Kuttan was facing several allegations including delayed promotion of assistant professors, decline in academic performance and not releasing foreign tour grant of professors.

Thomson Reuters Collaborates with Indian Education Ministry to Advance the Global Impact of its Academic Research Performance

http://www.prnewswire.com/news-releases/thomson-reuters-collaborates-with-indian-education-ministry-to-advance-the-global-impact-of-its-academic-research-performance-300254311.html

Initiative will provide 165 higher education institutions with access to Web of Science, the world's most trusted citation index of scientific and scholarly literature.

PHILADELPHIA, April 20, 2016 /PRNewswire/ -- The Intellectual Property & Science business of Thomson Reuters announced a strategic partnership to provide access to its online scientific citation indexing service, Web of Science, to India's e-Shodh Sindhu: Consortia for Higher Education Electronic Resources (ESS).

Formed in 2015, ESS is an initiative of India's Ministry of Human Resource Development (MHRD) to provide academic institutes with access to electronic resources and promote their usage.

The partnership between Thomson Reuters and e-Shodh Sindhu will provide 165 Indian universities with online access to the most comprehensive and versatile research platform for search and discovery. Used by over 7000 research organizations across the world, Web of Science™ consists of seven citation databases including sciences, social sciences, arts and humanities covering impactful scientific research from scholarly books, journals, conference proceedings, published data sets and patents. Reliable, integrated, multidisciplinary research delivered alongside the latest information on emerging trends, as well as subject specific content and analysis tools, will make it easy for students to identify the most important and relevant research to inform their work.

"Web of Science will provide students and faculty members with the proper resources to support their research efforts," said Dr.Jagdish Arora, Director, Information and Library Network Centre. "The agreement will enable India, which has the third-largest higher education system in the world, to continue its momentum as a viable resource for homegrown academic research."

"Investment in higher education is key to success in today's global knowledge economy," said Arvind Pachhapur, South Asia Head, Intellectual Property & Science business, Thomson Reuters. "By collaborating with ESS to provide our Web of Science portal, we believe that university students and faculty members in India will be equipped to further enhance the vibrant academic research landscape in the country."

MHRD forwards draft of IIM Bill to Law ministry for vetting

http://www.business-standard.com/article/pti-stories/mhrd-forwards-draft-of-iim-bill-to-law-ministry-for-vetting-116042101207_1.html

The Ministry of Human Resource Development has forwarded the draft of the IIM Bill, which would provide these premiere management institutions powers to grant degrees, to the Law Ministry for vetting.

Sources said the objective of the bill is to allow the Indian Institutes of Management (IIMs) award degrees instead of post-graduate diplomas, which is done at present.

The preparation of this Bill has seen a wide debate on various issues, including the status for autonomy to IIMs, an issue on which the Prime Minister's Office and the HRD ministry held different views.

There were reports that on certain aspects, including the composition of its Board of Governors, among others, different views were held in the PMO and the HRD ministry.

Sources said various aspects related to the Bill have been worked out and it is hoped that after scrutiny by the Law Ministry it would be ready to be sent to Parliament.

"The draft of the Bill is now with the Law ministry which will vet it," a senior official said.