Dip in girls entering IITs, govt sets up panel

Kolkata: The Union ministry of human resource development (HRD) has set up a committee to address concerns regarding a one percentage point decline in the number of girl students entering the Indian Institutes of Technology (IITs).

Of the 10,576 students admitted to the 22 IITs and the lone Indian School of Mines this year, the number of girls was 917 or 8.6%, down from 9% in 2015. IIT Kharagpur has the highest number of girl students, but there also the number came down from 188 to 116.

"Traditionally, the percentage of girls has never been very high at the IITs. It has ranged between 10 and 12. Many parents – particularly those in rural areas – feel that engineering is for boys," said an IIT professor. The IITs are autonomous public institutes of higher education with a common admission process for undergraduate admissions.

The ministry’s additional secretary R Subramaniam said the reasons for the decline would be known after the committee submitted its report. The committee will also suggest ways to get more girls to the IITs.

Former director of IIT-Delhi, Sarendra Prasad, however, does not see much concern. "It’s not a trend. Maybe, girls did not perform that well this year," he said.

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National Digital Library to help students get free study material

Once automation work ends, digitalisation of books will be taken up. Tagore Library has already submitted its proposal. The library is a treasure trove of 5 lakh books. It also has e-books recently purchased from Pearson publishers for Rs 10 lakh. JYOTI MISRA, deputy librarian, Tagore Library.

LUCKNOW: With an aim to provide free online study material to students, the ministry of human resource development (MHRD) is in the process of developing a National Digital Library (NDL) with the help of IIT Kharagpur. The UGC has advised students of different universities and affiliated colleges to register themselves on the NDL portal at https://ndl.iitkgp.ac.in/. The objective of the project is to provide different groups of users access single window to e-learning facility. NDL will harvest metadata and content from all the Institutional Digital Repositories (IDR) and other digital library initiatives in the National Digital Library Server so that the e-contents can be searched and accessed in the full text by the users through a single window. At Lucknow University’s Tagore Library, automation of the catalogue – the first baby step towards digitisation – is in progress. “The students of library science department are engaged in this task. Once automation work ends, digitalisation of books will be taken up. Tagore Library has already submitted its proposal. The library is a treasure trove of 5 lakh books. Besides, it has e-books recently purchased from Pearson publishers for 10 lakh,” said Jyoti Misra, deputy librarian, Tagore Library. Under this arrangement, educational material ranging from primary to postgraduate levels will be made available on one platform. The MHRD, under its national mission on education through information and communication technology, has initiated the NDL pilot project to develop a framework of virtual repository of learning resources with a single window search facility. NDL will facilitate focused searching so that learners can find out the right resource with least effort and in minimum time. It is designed to hold content of any language and provides interface support for leading vernacular languages (currently Hindi and Bengali). The library is being developed to help students prepare for entrance and competitive examinations, to enable people learn and prepare from best practices from all over the world and to facilitate researchers to perform interlinked exploration from multiple sources.

Tata Group ties up with global premier institutes for innovations
http://www.thehindu.com/business/Industry/tata-group-ties-up-with-global-premier-institutes-for-innovations/article9045492.ece

The conglomerate has tied up with prestigious institutions such as Harvard University, Yale University, Indian Institute of Technology - Madras, and the Royal Society to develop breakthrough technologies.

Tata Group has roped in world’s leading academic institutions including Harvard University, Yale University, Indian Institute of Technology - Madras, and the Royal Society to develop breakthrough technologies.

The financial support, exceeding $25 million, will be spread over time, in line with the tenure of the individual alliances with the institutions.

“It is the Tata group’s vision to touch the lives of 25% of the world’s population. To accomplish this vision, we are engaging with the best research institutions around the world to enable sustainable market development in the regions we work and live,” said Tata Sons Group Chief Technology Officer Dr. Gopichand Katragadda adding that this collaborative platform will allow the group’s companies to work closely with these leading universities and I have no doubt that the exciting research at these institutions will be strengthened by the market understanding of the Tata group to create outcomes that matter to the world.”
The Tata partnership with academic institutions is part of a global university collaboration programme for strategic outreach to academia across the world, said a Tata Sons statement adding that it is aimed at supporting university faculty and students through funded research programmes, sabbaticals, fellowships, and engagements with university leadership, as well as studying long-term research outcomes related to key market needs.

With Harvard University, Tata Sons, Tata Communications, Tata Steel, and JLR have established a six-year research alliance, which will bring together the capabilities of Harvard’s scientific research enterprise with those of the Harvard Business School.

Some of the initial areas of interest are soft robotics, advanced materials, and sensor technologies. “This initiative will harness the power of research that crosses traditional academic boundaries, leading to more rapid discovery and the development of new products and services that address real-world problems,” said Harvard Provost Alan M. Garber.

At Yale, Tata Sons, TCS and Tata Chemicals have set up a five-year alliance in the areas of network sciences, consumer behaviour and other research opportunities of interest. Tata companies will enable specific applications for needs including employee change management, customer acquisition strategies, and digital health. “We are especially grateful to partner with a company as highly regarded as Tata,” said Yale University President Peter Salovey.

In another strategic research engagement, Tata Steel has tied up is the five-year alliance with the Indian Institute of Technology Madras, in the area of Advanced Materials. Tata Sons will provide support through participation in the technical and governing bodies of the collaboration. The vision is to set up a self-sustaining research centre in Advanced Materials Technologies for the Tata group.

The collaboration with the Royal Society, UK, announced in June 2016, is a fellowship funding with participation from Tata Sons, JLR and TCS. The funding is aimed at establishing nine Tata University Research Fellowships in physical sciences and engineering over 10 years. These fellowships will provide early career scientists, who have the potential to become leaders in their chosen fields, with the opportunity to build independent research careers. The first Royal Society Tata University Research Fellows are due to be appointed in October 2016, said the Tata statement.

**IIT Kanpur won't ban companies from hiring though 31 startups have been banned**


KANPUR: While IITs across the country may have banned 31 start-ups from participating in annual placements, but IIT-Kanpur confirmed to TOI that no such ban has been imposed on companies on IIT-K campus. IIT-Kanpur director Prof Indranil Manna told TOI that students of IITK did not face situations where job offers were withdrawn. This, the former placement cell incharge of IITK, Prof Deepu Philip said was because the institute cautiously scrutinises the company and several other parameters before allowing companies to participate in the placement drive. As a result, while other IITs were forced to ban some companies, IITKanpur has not had to bar anyone. However, IITK director mentioned that some students faced delay in joining dates but their offers were never withdrawn.

"Start-ups cannot offer 100 jobs and later withdraw 50 of them as this can land students in trouble. As far as IITKanpur is concerned we were the least affected in comparison to IIT-Bombay and IIT-Madras where the start-ups withdrew the job offers given to the students", said IITKanpur director further.
Prof Manna further said that the issue was deliberated in the meeting of All India Placement Committee of IITs at IIT Kanpur on August 13.

Prof Philip added that at IIT Kanpur there exists a mechanism where the companies are scanned effectively. He said, "We do not differentiate between the start-ups and existing firms. We see the health of the company and the interest of the students. It is due to this reason that damages such as withdrawal of the job offers were minimised here at IIT Kanpur."

The IITs after the AIPC meeting had blacklisted 31 companies, mostly startups, which have been barred from taking part in the placement process at the IITs this year. The 31 firms include Zomato, which was banned last year also. The list was compiled after taking feedback from all the affected IITs. While black listing companies for dishonouring the institutes' placement policies is a regular feature at the IITs, this is the first time that they have struck off such a large number of firms for a year.

At IIT Kanpur, the last placement season (held between December 2015 and March 2016) had remained a successful exercise. Over 350 companies had participated and recruited students. About 1100 students had taken part in the placement drive and more than 90 percent of them had found placement and rest of them had either opted for higher studies or else choose to prepare for civil services. Many of them were shorlisted for the civil services in their first attempt itself.

Prof Philip mentioned that the placement drive was a very successful one. He said that high placement rate was achieved despite the fact that Kanpur city lacks airport and the recruiters used to land at Amausi airport in Lucknow to reaching IIT Kanpur by road.

**IIT Kanpur signs MoU with Tel Aviv University**


MUMBAI: Indian Institute of Technology has recently signed a Memorandum of Understanding with The TAU Blavatnik Interdisciplinary Cyber Research Center (ICRC), facilitating bi-lateral academic relationships, cooperative research as well as teaching projects in selected fields.

As part of the agreement, several types of projects have been envisioned by the two institutes. Graduate students, postdoctoral researchers and faculty exchange will become a regular feature to stimulate mutually beneficial research. Distinguished faculty from one institution will be invited as visitor faculty to the other and at the same time nominated individuals will receive special training in research and teaching.

Joint workshops will also be held to facilitate an exchange of ideas and scholars will regularly be invited to present their research findings and cutting-edge ideas. Speaking on the immense potential of this collaboration between the two universities, Professor Sumit Ganguly, Head of Computer Science and Engineering Department at IIT Kanpur said, "The Blavatnik Interdisciplinary Cyber Research Center at Tel Aviv University is one of the major cyber security centers in Israel, and in the world. Our research collaboration, and faculty/student exchange MoU is very timely as IIT Kanpur is in the process of building a center of excellence in cyber security, and the two institutes can collaborate very effectively in their common goal of building cyber security technology and man power in our respective countries."
Now, IIT-M students unwind by cooking, Formula racing

CHENNAI: If you thought cooking and technology had no connection whatsoever, well, think again. From cooking and baking to Formula racing, students at the Indian Institute of Technology, Madras, are taking a breather from their demanding academic schedule by testing their skills in an array of leisure time activities besides just tech and engineering on campus this year.

Keen to prove that it's not just about academics, the institute has introduced several new clubs which feature some unusual pastimes. This is in addition to the already existing sports, literary and cultural activities, and the co-curricular clubs that are part of the Centre for Innovation (includes robotics, aero, motor racing). The institute said that many of these clubs were formed through student suggestions.

"An engineer on campus may not be exposed much to the process of creating recipes but such experimenting with cooking or baking can trigger the creative aspect in students," said Dean of Students Sivakumar, adding that they received support for such initiatives - for example, much of the baking equipment was supplied by one of the alumni. Multiple sessions are already being held to accommodate the demand.

The dean explained that the activities have been based on the 'coach in the court' and 'piano in the hall' theory - where the accessibility of something or someone to mentor them makes more students take it up. With these different activities, the institute hopes for the creative muscle of students to be well developed which they believe will also reflect in their academic work.

The dean, an alumni of IITM himself, recalled that what helped him balance out the stress of academics was recreational activities like music and reading. "We aim to create an ecosystem that helps build a holistic personality. Whether it is an art form, literary form, or social set-up, students should pick one so that they contribute much more to society," he said.

Fly ash, red mud may replace cement: IIT

Bhubaneswar: An IIT Bhubaneswar research has found that the mixture of red mud and fly ash (both industrial wastes) can replace cement in construction works without compromising on quality.

Director R V Raja Kumar said, this is for the first time that any research has established the productive use of red mud, waste generated from aluminium plants. As far as fly ash bricks are concerned, they are commonly used now." The institute is in the process of filing a patent for the technology, he added.

Hanumanth Rao, a faculty member involved in the research, said 80% fly ash and 20% red mud can form self-compacting concrete with strength similar to cement. "The findings were results of a Nalco-sponsored research at IITBBS started in 2014," he added.

R K Panda, head of research and development at the institute, said the mix can significantly reduce construction cost as the two industrial wastes are freely available and industries are facing problems in its disposal.
The IIT director and the faculty members were interacting with media ahead of the institute's fifth annual convocation on Tuesday.

The IITBSS director said the recently launched start-up centre at the institute has invited at least 30 proposals in its first round. The institute will select the innovative ones soon and mentor them. The Toshali plaza premises occupied by IIT's administrative wing will be dedicated to the startup initiative, he said.

Kumar said the institute will soon launch an initiative to ensure that students in all technical institutions here as also some neighbouring states have ideas about how to start a small industry and funding opportunities available with banks and venture capitalists. The institute will confer seven doctorates, 55 MTech, 69 M.Sc and 110 BTech degrees during the convocation on Tuesday.