Newspaper Clips

May 29, 2011

Times of India ND 29/05/2011 P-20

There's a good reason why IIT is not MIT

IN PRINCIPLE

SRIVATSA KRISHNA

A journalist once told Bobby Fischer that a female Grandmaster had complimented the American chess player as "a genius". Fischer wryly replied that's true, but she has no way of knowing! Perhaps Jairam Ramesh's comment can be put in the same genre.

At the outset, it's important to recognize that IITs and IIMs can't be clubbed together. They are very different institutions and need to be analyzed differently. Had Ramesh said that IITs are not MITs or that IIM is not Harvard Business School, no one could quarrel with that. But what he said is not substantiated by hard facts or data.

The mandate of the IITs and IIMs for the first 50 years was to provide the sinews and muscles in terms of managers and leaders for developing India's corporate sector and to help the government programmes. They have done so admirably. This is evident from the fact that today a Tata can go global and acquire a Corus or a Ritz Carlton and a GMR can build airports in Maldives and Istanbul. This would have been unthinkable just a decade ago.

A CLASS OF THEIR OWN: There is significant value-addition inside IITs and IIMs

The Institute for Lean Construction Excellence, an initiative entirely driven by the Civil Engineering Department of IIT-Madras along with some corporate houses is building information systems into new construction. A leading infotech company's research centre at IIT-Madras Research Park has managed to cut energy consumption by 22% at various sites run by the firm. Applied research like this has enormous value for a developing country like India.

Second, till as recently as 2000, IIT-Madras had a budget of about Rs 35 crore. Today, it has Rs 200 crore. It also faced significant constraints on hiring. For example, Ramanujam could never have been hired even though he was a genius as he had failed his BA exams. Compare this with the endowment of say a Caltech or Harvard or MIT. That runs to millions of dollars and has a 100-year research focus and legacy! It is truly odious, therefore, to compare the IITs with an MIT.

Despite this, professors of IIT Madras have published in world-class journals such as the "Journal of American Chemistry Society", "Journal of Physical Chemistry", "Annals of Mathematics" and American civil and mechanical engineering society journals. But there is no gainsaying the fact that IIMs have not produced as much research as they should, given the size of their faculty.

Third, as students of multiple leading institutions such as Harvard Business School, IIT and IIM can attest, there are good and bad professors in every institution. While there is no Clayton Christensen yet at IIM-B, one cannot overlook the fact that in the last two years alone, they have hired 26 new faculty members predominantly from Wharton, INSEAD, MIT etc. Why would young PhDs/ brilliant faculty from these schools voluntarily relocate to IIMB unless they saw the possibility of doing world-class research and teaching there?

Fourth, why do global companies, banks and consulting firms repeatedly hire from IITs/IIMs? They are under no pressure to do so, but the engineers and managers they produce are world-class, which means there is significant value-addition inside these institutions or else they could hire them straight after the 12th Boards! Jairam Ramesh is not right to say that IIT and IIM students are brilliant, not their institutions.

Fifth, autonomy is unarguably a good thing but the other side of the coin is accountability. At least a few good IIMs are pushing for more accountability along with more autonomy. Accountability would include publishing in many more of the world's top journals, increased hours of teaching and research, and strict curbs on unionism and indiscipline. It is shocking that there is no annual appraisal of IIM professors. From 2007, IIMs can pay faculty whatever they want, charge whatever fees they want, open campuses abroad and buy/sell land using their resources. But still they refuse to increase the total hours of teaching and research from 90 to 160 per year.

Jairam Ramesh, a bright, well-meaning professional IIT alumnus, has made it big in politics. But he may only be able to realize his dream of becoming finance minister if he learns to emulate Bobby Fischer rather than former Indian ministers with foot-in-mouth disease.

The author, an IAS officer, has studied at Harvard Business School, IIT Madras and IIM-B. These are his personal views

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Economic Times ND 29/05/2011 p-18

Are our IITs and IIMs world-class institutions?

No. And they don't need to be, argues Debashis Chatterjee. IITs & IIMs were set up to produce quality engineers and managers, not to compete for talent globally

The Sunday QUESTION

The expression 'world class' in education denotes bench-marking of excellence of our institutions in terms of admissions and selection process, curriculum design and delivery, research and teaching performance, quality and methods of learning, quality of infrastructure, students' satisfaction and real value addition when compared with all similar institutions from anywhere in the world.

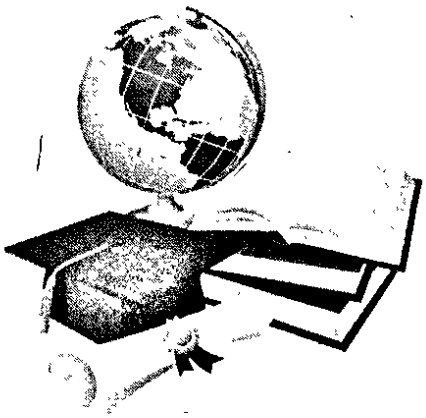
By the above definition, IITs and IIMs will have to be assessed in the context that they find themselves in. Attributing the label, 'world class', without this context is meaningless. IITs and IIMs were established by the government with public funds and are perceived as public institutions of national importance with a mandate to produce engineers and managers who would go onto serve the national demand for engineers, technologists and managers.

As institutions, they were entrusted with the task of building capability in a country that was virtually left bankrupt by our colonisers. They were not mandated since their inception to compete for talent globally. Yet, it stands to reason that both IITs and IIMs have a selection excellence (ratios do not tell a lie) that is unparalleled in the world.

Debashis Chatterjee is Director, IIM-Kozhikode

A significant number of these students selected end up as faculty in these institutions of excellence. How can the same world-class students become cattle class as they take on the role of faculty? The answer to this question lies in the very design of these institutions that are not able to unlock the true potential of their knowledge workers.

It is true that IITs and IIMs have not emerged as foremost research institutions. Currently, they are more driven by market demand for engineers and MBAs than they are by the urge to create original knowledge.



The existing performance and reward structure within IITs and IIMs are not geared towards original knowledge creation either. Our current missions do not represent the urgency to establish global footprints in research, learning and teaching. Do we have the kind of institutional and instructional leadership that would help us negotiate the paradox of IIMs being globally competitive schools yet serving local geo-political interests and sensitivities?

The answer to these questions cannot be found by creating such simplistic labels as 'world class' or otherwise. We have to elevate this debate to the systemic understanding of how we breed mediocrity in an institution of excellent people? This is like asking this: how is India such a poor country made up of so many rich people? Academic talent, like wealth, does not grow when they are kept confined within individual, socio-political and national boundaries. Would Sachin Tendulkar still be a world-class batsman if his batting was restricted only to Indian pitches? Would AR Rahman win the Oscars if he was stuck in the narrow groove of his musical tradition?

For me, the idea of a world-class institution is about liberating the learners within the system so that they can grapple with the larger concerns of the universe rather than their own pay scales and increments. It is about rising above narrow comparison and feverish acquisitions. That is what a world-class university stands for. The systemic chains that lock up the potential of our institutions have to be unshackled before they are benchmarked for stardom. The only way IIMs and IITs can rise to their own legitimate potential to be world-class institutions is by remaining relevant and useful to the larger world that they inhabit. Yes, honourable minister, our students have gone out and ruled the world. Can their teachers be too far behind?

Hindustan Times ND 29/05/2011 P-13

FIVE POINT SOMEONE?

JAIRAM RAMESH vs IIT FACULTY

The environment minister was right. The biggest study on careers chosen by IITians shows that the institute's graduates are laggards in pursuing research. But is that the entire picture?

Charu Sudan Kasturi
■ charu.kastur@hindustantimes.com

The Indian Institutes of Technology may indeed be lagging behind the world's best institutions in research, as environment minister Jairam Ramesh recently said, but the career profile of their students suggests the faculty alone may not be responsible.

The most comprehensive study yet on the career paths chosen by IITians suggests that students who leave the country's top engineering schools after their undergraduate or masters rarely pursue research or teaching. But the study of IIT alumni from over 50 years, conducted in end-2008 by the Pan IIT Alumni Association, the apex alumni body of the institutes, also offers a ray of hope. It suggests that the number of IIT alumni settling on research or education careers is increasing.

While 58% of IIT PhDs are involved in research or teaching — either at the IITs or at other institutions around the world — the number is much smaller for those who pursued undergraduate or masters studies at the institutes. Only 14% of students who pursued their bachelors or a dual degree — a combined course of bachelors and masters — at the IITs are currently teaching or are in research.

Just 22% of masters students from the IITs have taken up research or teaching. The rest of the undergraduates and masters students are, instead, contributing to industry and society in diverse roles (see charts below).

"That a vast majority of our undergraduate and masters students have eventually chosen careers away from research and teaching is a fact we have recognised, and are addressing. Unlike Jairam Ramesh, we have to improve the IITs and cannot get away by merely criticising what is missing," an IIT director said on the condition of confidentiality.

Two other IIT directors argued that the figures thrown up by the alumni study point to "the wider problem that we have been screaming ourselves hoarse about — that bright youngsters today rarely want to take up research, and instead prefer more lucrative careers".

But blaming IIT graduates for the absence of adequate quality research at the IITs may be as simplistic as blaming faculty members alone, warn academicians and administrators.

While some of this may be a result of the recent recession — when several IIT graduates lost lucrative jobs — the number of IITians picking teaching and research is, slowly but definitely, increasing. From just 13% among graduation batches up to 1976, the share has gone up to 20% among those who passed out after 2001.

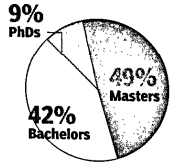
The findings bust several myths. It shows that most students do pursue further degrees after IIT, and that they don't necessarily need an MBA to reach top leadership positions in their chosen fields. A majority of IIT alumni (63%) live in India, though a majority of those who go abroad (65%) stay abroad.

Engineers and entrepreneurs, politicians and venture capitalists, bureaucrats and social activists — the IITs have produced leaders in sectors apparently far removed from the engineering and science studied as students.

Does India want it any other way?

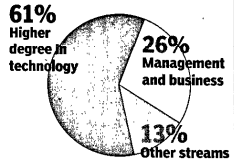
WHAT IITIANS STUDIED

Degrees earned at IIT



Note: Out of a total of 1,75,000 IIT alumni, from the first batch at Kharagpur in 1951

Those who studied further



Note: Two-thirds of all IIT graduates have gone on to study further

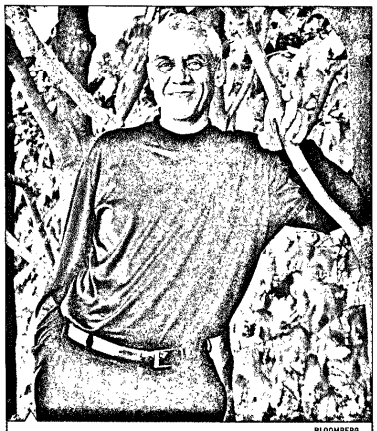
WHAT THEY ARE NOW DOING NOW

	Bachelors*	Masters	PhD
Research and teaching	14	22	58
Entrepreneurs or venture capitalists	13	5	6
Engineering	31	31	7
Services, including consultancies	24	24	11
Social sector	8	9	8
Others	10	9	10

*Or bachelors-masters dual degree holders
Figures in percentage

Source: Pan IIT Alumni Association, 2008 study

SOME IIT GRADS WHO DIDN'T TAKE UP RESEARCH OR TEACHING



BLOOMBERG

VINOD KHOSLA
Venture capitalist, co-founder of Sun Microsystems

Vinod Khosla may figure in the 86% of IITians who, after their undergraduate studies, did not pursue research or teaching. But he has made sure that his money contributed to research at IIT.

After completing his BTech in electrical engineering from IIT Delhi, Khosla went to Carnegie Mellon University and then to the Stanford Graduate School of Business.

But it was with Sun Microsystems — which he co-founded and headed from 1982 to 1984 — that Khosla first became truly known. The firm — Sun is an acronym for Stanford University Network — was started with Stanford classmates.

He left the firm to become a venture capitalist, helping numerous start-ups take birth and eventually take flight. Clean energy is another passion for Khosla, who received the support of former British prime minister Tony Blair in pushing technologies focused on the environment.

Khosla also provided the endowment that has helped IIT Delhi create a novel IT research institution. The Amar Nath and Shashi Khosla School of Information Technology at IIT Delhi aims to foster inter-disciplinary research, innovation and post-graduate studies in the field.

GYANESH PANDEY
CEO and co-founder, Husk Power, Patna

Jairam Ramesh has a sympathiser in this Patna-based entrepreneur, who has had to face repeated challenges as he has tried to use husk to light up villages in Bihar.

Gyanesh Pandey, who has won several awards for his work at Husk Power, insists that environment minister Ramesh is correct in stating that the standards of faculty and research at the IITs are shoddy.

"I agree with what he says completely. Anyone who has seen the standards of research and faculty at institutions in the US, cannot but agree," he states emphatically. Ramesh studied at Carnegie Mellon University and the Massachusetts Institute of Technology after his BTech from IIT Bombay. Pandey studied at the Rensselaer Polytechnic, the oldest technology university in the English-speaking world and one of the top engineering schools in the US, after his graduation from what is set to become the youngest IIT — the Institute of Technology in Varanasi.

"The diversity you get on campus is something I learnt a lot from. But from the teaching point of few, the IITs are not very special. They use antique syllabi and there is hardly any worthwhile research on," he says, his words sounding remarkably similar to Ramesh's.

The IITs, Pandey argues, provide no academic provocation to probe the frontiers of knowledge.

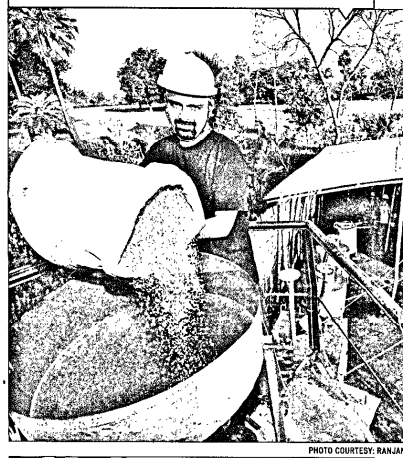


PHOTO COURTESY: RANJAN

VIJAY SINGHAL IAS, Commissioner of Kolhapur

At 39, Vijay Singhal knows his pay package could have been significantly higher had he taken up one of the many lucrative campus recruitment offers available to him after he completed his MTech in civil engineering from IIT Delhi.

But few professions, he says, would have given him the opportunity to serve people the way his job as an IAS officer does. And, as he has found out, his work has frequently benefited from his education as a civil engineer at an IIT.

"I remember the chairman of the Union Public Service Commission asking me why I was moving from an IIT education to the civil services. At the time, my answer sounded like rote learning. I now know why much better, as I told the UPSC chairman when I met him at a function later," Singhal recalls.

Singhal completed his BTech in civil engineering at IIT Roorkee before joining IIT Delhi for his masters. But it is as an IAS officer — he joined the Maharashtra cadre in 1997 — that Singhal could merge his educational training with his desire to contribute to larger social causes.

Earlier, as collector of Jalgaon, he used his engineering knowledge to complete a river linking project that won a prime ministerial award.

"When builders know that the Commissioner is a civil engineer from IIT, they don't even try to cheat. That's one of the many ways my IIT years help me everyday," he says.

ASHOK DUTTA/HT PHOTO

GETTY IMAGES

NR NARAYANA MURTHY
Founder and mentor, Infosys

Had it not been for an IIT, NR Narayana Murthy, co-founder of India's second largest information technology firm Infosys, may not have gotten close to a computer at the time he did.

And this was someone who couldn't take up BTech at an IIT because his father could not afford the fees. He did his undergraduate degree at the National Institute of Engineering under the University of Mysore.

But Murthy did make it to IIT Kanpur for his MTech in computer science. Collaboration between IIT Kanpur and eight top American research universities meant that Murthy had access to the then wonder-machine called the computer in the late 1960s when most Indians had not heard of it.

And it was the draw of the machine that took Murthy to the Indian Institute of Management Ahmedabad for his first job as a chief systems programmer. Using a mini-computer, IIM Ahmedabad became the third business school in the world — after Harvard and Stanford — to install a time-sharing system.

It started a career that went on to define the Indian IT industry.

AJIT ASHWALAYAN SHUKLA
Founder of Bharat Punarnirman Dal

Shukla joined Infosys after his BTech and MTech from IIT Bombay, but left the company in a few months. He joined a PhD programme in economics in Mumbai but had to leave that as well because it was not fully funded and he was facing financial constraints.

It was then that the now-32-year-old Shukla decided to follow the instincts that had been tugging at him since his undergraduate days: to do something to improve India. He and his friends started out with social work in rural Uttar Pradesh, and in 2007 launched the Bharat Punarnirman Dal, aimed as a party for professionals keen to join politics to provide clean governance.

Many critics dubbed their political views juvenile and the BPD's opposition to caste-based reservations has attracted charges of casteism. But this time, Shukla has not given up.

So what drew him to politics?

"At some point in time, I realised that we needed better people at the top of the country... better people leading us," he says.

"The IITs have mechanisms — like the pan-IIT groups — to encourage their students to take up careers in the corporate world and other spheres, but I saw nothing similar for IITians keen to give back to the nation through politics."

Economic Times B`lore
28.05.11,p-2

BJP, IIM Dons Slam Jairam

OUR BUREAUS
NEW DELHI | AHMEDABAD

Environment minister Jairam Ramesh, who triggered a controversy with his remarks that faculty at IITs and IIMs were "not world class", drew sharp criticism from politicians and academics on Tuesday. While the BJP went on the offensive, professors at IIM-Ahmedabad said the minister's assessment of the faculty was "simplistic" and showed "tremendous ignorance", though they agreed that research was lagging.

On Monday, Ramesh said the IITs were "excellent" on account of the quality of students and not the quality of research or faculty. "IITs are surviving because of their students. There is hardly any worthwhile research from our IITs. The faculty in the IIT is not world class. It is the students in IITs and IIMs, who are world class. So the IITs and IIMs are excellent because of the quality of students not because of quality of research or faculty." The minister's comments come at a time when the HRD ministry is grappling with the issue of improving research and faculty quality of the IITs. Earlier this month, a ministry-appointed committee headed by Anil Kakodkar recommended measures to improve research as well as faculty strength and quality at the IITs. BJP spokesperson Rajiv Pratap Rudy said, "We cannot have world-class institutions till we have world-class ministers." He said the party was proud of the IITs and IIMs, adding that "ministers should refrain from making such statements". Terming Ramesh's remarks as "unfortunate", minister of state for science and technology Ashwani Kumar said government scientific and technological institutions have done India proud.

Mail Today ND 29/05/2011 P-25

What About World-Class Ministers?

Tweeterati GAURAV MISHRA deconstructs popular culture on Twitter

HERE'S a trick question: What's common between IITs/IIMs and Tihar Jail? Well, just like the IITs and IIMs have world-class students but not world-class faculty, Tihar has world-class inmates but not world-class jailers!

The Tweeterati need a *tamasha* every week, and last week's entertainment came from environment minister Jairam Ramesh. After former foreign minister Shashi Tharoor's (@shashitharoor) misadventures on Twitter, the denizens of the microblogging site have come to expect politicians getting into trouble because of their tweets, but Ramesh didn't even have to tweet to become a joke on Twitter.

Ramesh's comment that IIT/IIM students are world class, but their teachers aren't, may, on the surface seem innocuous, but it has led to a tweetstorm, with IIT/IIM students up in arms against the minister. Author Chetan Bhagat (@chetanbhagat), who's an IIT-IIM alumnus, led the Twittermob by wondering aloud if Indian politicians are more world-class than IIT/IIM faculty, and followed it up with the cheeky comment that the daughters of some of the IIT/IIM faculty are definitely world-class, even if their parents aren't (remember *Five Point Someone?*).

Chetan Bhagat cheekily suggested that some of the IIT/IIM professors have "world-class" daughters

(Bhagat, by the way, has perfected the art of stoking a controversy on Twitter after his own notorious #chetanblocks episode. A few weeks ago, he asked the Tweeterati to print #meranetachorhai in Hindi on their forearm to protest against corrupt politicians.) The favourite academic of Twitterverse, Arindam Chaudhuri (@arindam_iipm) linked Ramesh's comment with his IIPM pitch of daring to think beyond the IITs and IIMs!

In this joke fest , Apurv Pandit (@apurv), the editor of the MBA preparation website, PagalGuy.com (@pagalguy), emerges as the voice of reason in a heavily tweeted blog post where he makes an interesting observation on why IIT/IIM alumni are so outraged by any criticism of their alma mater.

After India's liberalisation, Pandit points out, an IIT/IIM education made it possible for young people from the great middle class to get high-paying multinational jobs and move up to the economic upper class, instead of searching for an uncle's 'reference' to get a government or bank job.

I grew up in middle-class Patna, studied at IIM-Bangalore and taught at Georgetown University. But instead of feeling outraged at Ramesh's comment, I am amused at how little our politicians understand of what being 'world class' is all about.

— Mishra (@gauravonomics) writes about the business of social web at ww.gauravonomics.com/blog

Indian Express ND 29/05/2011 p-1

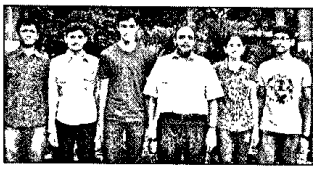
IIT JEE toppers form Physics Olympiad team

MIHIKA BASU
MUMBAI | MAY 28

FOUR of the five IIT Joint Entrance Exam (JEE) toppers this year have something in common: the International Physics Olympiad (IPhO).

They are part of the team that represents India in the Olympiad in July. Almost every year, the students selected by Mumbai's Homi Bhabha Centre for Science Education (HBCSE) for the Physics Olympiad find themselves at the top of the JEE rank list.

This year's team: All India topper Prithvi Teja, Shubham Mehta (JEE rank 2), B Sai Kiran (4), Nisheeth Lahoti (5) and Sumegha Garg (12), the topper among girls.



(From left) Teja, Mehta, Lahoti, Prof. Singh, Sumegha Garg and Sai Kiran

"The elite team of five students to represent India at the Physics Olympiad was picked on May 23, two days before the JEE results were announced. It's not the first time that the students selected and groomed by us have bagged top slots in JEE. It has been a trend for several years now," says Professor Vijay Singh, national coordinator, Science Olympiads. The three-tier selection process started in November 2010.

The HBCSE is the nodal centre for other Olympiads—Astronomy, Chemistry, Biology and Mathematics—as well.

CONTINUED ON PAGE 2

THE TEAM 'OLYMPIAD'

2008	JEE RANK	2010	JEE RANK
SHITIKANTH	1	VIPUL SINGH	5
NISHANT TOTLA	2	SANCHAR SHARMA	16
GARVIT JUNIWAL	3	AAKANSHA SARDA	18
SAURABH GOYAL	16	MEHUL KUMAR	19
KUNAL SHAHJEE	21	SHIVAM HANDA	7
2009		**2011**	
NITIN JAIN	1	PRITHVI TEJA	1
SHUBHAM TULSIYANI	2	SHUBHAM MEHTA	2
GOPI SIVAKANTH	3	BURLE SAI KIRAN	4
PRIYANK PARIKH	6	NISHEETH LAHOTI	5
VINIT ATAL	90	SUMEGHA GARG	12

Fab five

"The selected students are not resting on their laurels. They will be burning the midnight oil," says Singh.

Over 80 countries are expected to participate this year in the competition which began in 1967. India has been a participant since 1998. While the Olympiad does not officially declare ranking of nations, in terms of medal tally, China has been a consistent winner, while India usually features in the top 5.

The Science Olympiad programmes in India are funded by the Department of Atomic Energy, Department of Science & Technology and Ministry of Human Resource & Development.

"The JEE is just an entrance test, but the Olympiad is an international competition in which students like us have been given the opportunity to bring glory to the country. I am keen to win a gold for India. My parents, who have always been my strength, were in tears when they heard that I was selected for IPhO," says Teja who is preparing for the competition by going through the papers of previous years.

His teammates share Teja's excitement and enthusiasm. "The Olympiad is more important than my rank at JEE, not just because it's an international event, but also because getting selected for it is tough. Also, the experimental tests at IPhO are creative, exciting and at a different level altogether," says Sai Kiran.

The group will assemble again at the Homi Bhabha Centre for Science Education (HBCSE) by June end for the last round of preparations before it leaves for Thailand.

Economic Times ND 29/05/2011 p- 20

Campus Patents = Great Job Offers

Corporates are looking for student innovators who bring new ideas to the table. To meet their demand, colleges are helping students file patents, protect copyright and commercialise inventions

:: TV Mahalingam

Mayank Swarup, 22, will report to work for the first time in his life, in August this year. The fourth year engineering student of Manipal Institute of Technology (MIT) will join automotive giant Mahindra and Mahindra (M&M) at its Nashik campus. Swarup credits his blue-chip job to both his degree in industrial production, and a patent for an invention – a refrigerator-cum-water purifier – that has been filed in his name at the US and Indian patent offices.

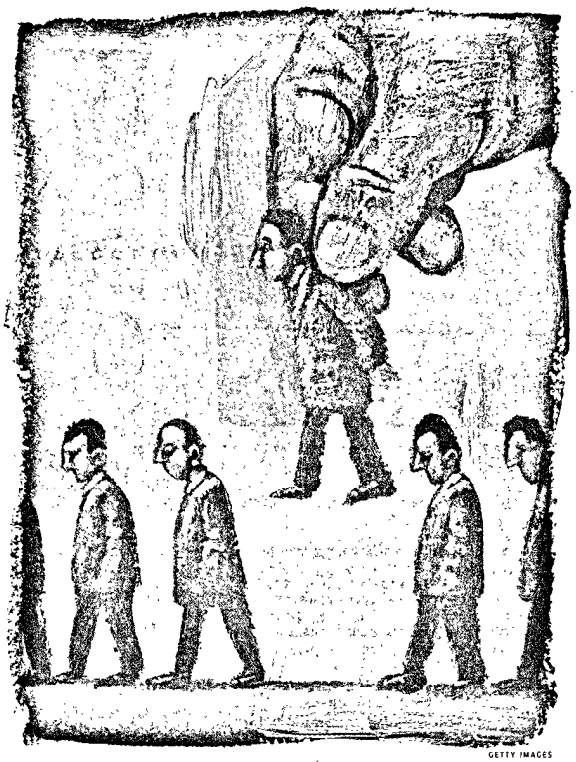
"The invention was viewed as an achievement during the interview," recalls Swarup. In campuses across the country – from Mumbai to Manipal – students like Swarup are now being encouraged by their universities to not just create intellectual property (IP) but protect them by filing patents. These universities are hoping that this will unleash a new wave of entrepreneurship and innovation in campuses.

For example, in Manipal, an incubation body – Manipal University Technology and Business Incubator (MUTBI) – was set up in March 2010 to encourage technology entrepreneurship among students, faculty and local business. "Since then, we have filed 12 patents," says Manohara Pai, chief executive officer and secretary, MUTBI. These include five patents filed by students including one for a low-cost, high-magnification telescope.

At IIT Bombay, the traditional hotbed of student innovation in India, patent filings have become an area of focus in the past few years. In 2009, the institute filed 16 patents. That number jumped to 46 in 2010. By the end of March 2011, the institute had already filed 15 patents. "We have been filing patents since the 1960s but we have become very focused about it in the past few years," says Padma Satish, who is a part of IIT Bombay's Industrial Research and Consultancy Centre.

Incubating Innovations

This increased focus has seen the institute simplify its internal patent review process and bolster its team of patent lawyers who have been working with student innovators and faculty for the past two years. Beginning last year, the institute also started 'mining' the 650-odd doctoral and masters theses filed by scholars for patentable IP. "We kept these theses out of the public domain for a few months as we mined them for patents. We are filing 17-18 patents from them," says Dr Satish.



GETTY IMAGES

A thousand kilometers away, at the Amity University campus in Noida, faculty, students and researchers have filed over 150 patents in the past one-and-a-half years in areas ranging from nanotechnology to food processing. "Amity University students have already established over five companies. Over 20 patents have been filed by the incubator for entrepreneurs, faculty and researchers," says Atul Chauhan, chancellor, Amity University.

The spurt in innovation has not gone unnoticed. The patent for Swarup's invention, for example, is being filed by Intellectual Ventures (IV), a Washington-based 'invention investment' company which scans campuses worldwide for 'bleeding-edge' inventions, ties up with the student inventors and then licenses the technology to private companies.

In an email interaction with *ET on Sunday*, IV officials said that invention generation capabilities at Indian universities are "extremely high". "Our Indian office has always found high-quality inventions in India. In fact, we presented an invention from one of our Indian inventors at our annual investors meeting recently as an example of the wonderful inventions we are seeing from around the world," says Nicholas Gibson, IV's director for international marketing.

IV had started its India operations in 2008 with a tie-up with IIT Bombay. Since then, IV India has tied up with eight universities in India, including other IITs, says its country manager, Kiran Hosakote.

In the past, critics have accused the company of being a "patent troll". However, innovators like Swarup believe that without the support of the universities and funders like IV, he would not have filed a patent.

Money Matters

Typically, a student innovator is paid fixed sums (varying from $700-2,000) at three stages – when he signs up with a company like IV, when the patent is filed, and finally when a patent is granted. At each stage, the university takes a 20% cut from the amount. Finally, when the patent is licensed for commercial use, the college gets paid 15% of all profits that accrue from the invention. Of this, 70% is paid back to the student innovator. IV did not talk about specific details about the patents filed out of India, without permission from the universities and innovators it works with.

Universities, for their part, are pulling all stops to encourage patent filing. At Manipal, MUTBI splashed the campus with posters in 2010 announcing a cash award of ₹5 lakh for winners of Provenance – an annual business plan event. IIT Bombay and Amity have a panel of patent lawyers who advise students and faculty on the intricacies of IPR laws.

But, it's still early days for Indian universities which are learning the ropes on IP protection. "Filing of patents is complex paper work and the student researchers and faculty of Amity are effectively trained," says Chauhan. "Filing of patents costs anywhere between ₹4,000 and ₹20,000. International filings cost more," he adds. IIT Bombay officials say it takes about four years for a patent to be granted. Perhaps this is why, despite filing 200-odd patents (a bulk of which were filed since 2000), IIT Bombay has received only 68 patents.

Indian universities prep for an innovation drive

Setting up technology licensing offices: A norm for tech institutes abroad, these help students and faculty with filing patents, licensing, trade marking and copyright issues

Tying up with invention investment companies: These act as interface between inventors and the market and help widen the reach of the new product

Roping in IP experts: A panel of lawyers explain the nuances of intellectual property laws to students and faculty

Giving special incentives to innovators: Contests and cash prizes are common among tech institutes which exhibit ideas in 'innovation fairs'

Making royalty distribution transparent: Most colleges collect about 15% revenue from the commercialisation of an innovation. Of this, 70% goes to the student innovator

Amar Ujala Kanpur
28.05.11,p-5

आईआईटी पर जयराम रमेश का बदला सुर

गुवाहाटी। आईआईटी और आईआईएम में शिक्षकों की गुणवत्ता पर सवालिया निशान लगाने वाले केंद्रीय पर्यावरण मंत्री जयराम रमेश ने शुक्रवार को इस मुद्दे पर अपना सुर बदल लिया। उन्होंने आईआईटी सिस्टम की जमकर सराहना की। रमेश यहां आईआईटी कैंपस में 13वें दीक्षांत समारोह में हिस्सा लेने आए थे। पर्यावरण मंत्री ने कहा कि वास्तव में मुझे थोड़ी आशंका था कि यहां मुझे विरोध स्वरूप काले झंडे देखने को मिलेंगे। मुझे खुशी है कि कैंपस में मेरा प्रवेश बिल्कुल शांत तरीके से हुआ। इस दौरान उन्होंने कहा कि पिछले साल हमने सभी सातों आईआईटी के एक संघटन को गंगा नदी के लिए रिवर बेसिन मैनेजमेंट प्लान बनाने का 17 करोड़ रुपये का प्रोजेक्ट सौंपा। यह प्रोजेक्ट एक अमेरिकी कंपनी को लगभग दे ही दिया जाने वाला था। मतलब यह है कि सिस्टम, फैकल्टी और छात्रों का उपयोग होने देना चाहिए। उम्मीद है कि अन्य प्रोजेक्ट में भी ऐसी ही भागीदारी देखने को मिलेगी।

आईआईटी और आईआईएम को लेकर दिए बयान के बारे में पूछे जाने पर उन्होंने कहा कि आईआईटी से मेरा जुड़ाव 1963 से है। बहुत लोग ऐसे नहीं हैं जो आईआईटी से 48 साल से जुड़े होने का दावा कर सकें। केंद्रीय मानव संसाधन विकास मंत्री कपिल सिब्बल ने आईआईटी की गुणवत्ता पर सवालिया निशान लगाने वाले रमेश के बयान पर कहा था कि दिल्ली, कानपुर, चेन्नई और मुंबई के आईआईटी विश्व के 50 सर्वोत्कृष्ट इंजीनियरिंग संस्थानों में शुमार हैं। देश के आईआईटी के संसाधन और बुनियादी ढांचे दुनिया के दूसरे संस्थानों के मुकाबले कम हैं

DANIK BHASKAR ND 29/05/2011 P-1

एजुकेशन . आईआईटी फैकल्टी पर जयराम रमेश की टिप्पणी से उठे नए सवाल

रिसर्च पर उनका खर्च 11250 अरब, हमारा 360 अरब रुपए

देश के सर्वश्रेष्ठ इंजीनियरिंग कालेज माने जाने वाले इंडियन इंस्टीट्यूट ऑफ टेक्नोलॉजी (आईआईटी) के छात्र विश्वस्तरीय हैं, लेकिन शिक्षक (फैकल्टी) नहीं हैं? केंद्रीय मंत्री जयराम रमेश के इस बयान से उपजे विवाद के बाद भास्कर संवाददाताओं ने आईआईटी के निदेशकों और डीन से बात कर पता लगाया कि कैसे होते हैं विश्वस्तरीय संस्थान और क्या होती है विश्वस्तरीय फैकल्टी?

त्रिभुवन. नई दिल्ली / विजय उपाध्याय. कानपुर/ चिरंतना भट्ट. अहमदाबाद

अंतरराष्ट्रीय जरनल्स में प्रकाशित रिसर्च ही किसी संस्थान को सही मायने में विश्व स्तरीय बनाते हैं। यूं तो किसी संस्थान को विश्व स्तरीय बनने के लिए संस्थागत ढांचा, अकादमिक करीकुलम, रिसर्च और बेहतरीन फैकल्टी- ये सभी जरूरी हैं। करीकुलम तो कोई यूनिवर्सिटी दूसरे का देखकर उसकी तर्ज पर बना सकती है, ढांचा और सुविधाएं भी पैसे से आ जाती हैं, लेकिन रिसर्च ही एक ऐसी चीज है जो केवल शिक्षक और विद्यार्थी की खुद की मेहनत और लगन से ही आती है।

हमारे यहां भी रिसर्च हो रही है और इसे न सिर्फ अंतरराष्ट्रीय जरनल्स में जगह मिल रही है, बल्कि विश्व स्तर पर सराहा भी जा रहा है। हालांकि हमारी रिसर्च की तुलना दुनिया के सबसे बेहतरीन मैसाचुसेट्स इंस्टीट्यूट ऑफ टेक्नोलॉजी (एमआईटी) से करना ठीक नहीं है।

सीमित सुविधाओं और सीमित बजट को देखते हुए हमारी रिसर्च का वर्तमान स्तर बड़ी बात है। हमारी आईआईटी के पासआउट ही एमआईटी जैसे संस्थानों में फैकल्टी के बतौर ज्वाइन कर लेते हैं, जिससे एमआईटी का स्तर ऊंचा है। इंटरनेशनल लेवल के जरनल्स में उनके रिसर्च पेपर हर साल छपते हैं। हमारे 1,600 रिसर्च पेपर इंटरनेशनल लेवल के जरनल्स में छपे हैं। जहां तक आईआईटी की प्रतिभाओं के निजी कंपनियों में जाने का सवाल है, यह अंडरग्रेजुएट स्तर पर होता है। इससे हमारी रिसर्च प्रभावित नहीं होती।

हमारी तनख्वाहें और अच्छी होंगी तो हम पूरी दुनिया से बेहतरीन प्रतिभाओं को खींच सकते हैं। हालांकि हिंदुस्तान में दिए जाने वाले वेतन की तुलना अमेरिकी वेतन से सीधे-सीधे नहीं की जा सकती। हिंदुस्तान की तरह ही होंगी। हम इसे अपने हालात से अलग कर नहीं देख सकते। इसके बावजूद हमारे आईआईटी दुनिया में ऊंचा मुकाम रखते हैं। लेकिन जहां तक कटिंग एज रिसर्च का सवाल है, उसके लिए उसी स्तर की टीम चाहिए।

एमआईटी, स्टैंडफोर्ड, कैंब्रिज, ऑक्सफोर्ड और कैल्टेक दुनिया के टॉप फाइव संस्थान हैं। उनका इनवेस्टमेंट देखें और हमारा इनवेस्टमेंट देखें। हमारे यहां सात आईआईटी में जितने शिक्षक हैं उतने उनके यहां एक डिपार्टमेंट में हैं। इसके बावजूद आईआईटी बॉम्बे आज वर्ल्ड में टॉप 20 इंजीनियरिंग कॉलेजों में शुमार है। हमारी आईआईटीज ने ऐसी प्रतिभाओं को पैदा किया है जो वर्ल्ड इकॉनोमी में उत्पादन बढाने और उसकी गुणवत्ता को बेहतर बनाने के लिए काम कर रही हैं। हमारे लोग बेहतर वेतन के लिए जिन निजी कंपनियों में जा रहे हैं, वे आज की इकॉनोमी की जरूरत को पूरा कर रहे हैं।

शेष पृष्ठ 2 पर

क्या है रैंकिंग

अगर आईआईटी में वर्ल्ड क्लास फैकल्टी नहीं है तो फिर विश्व स्तर पर हम टॉप 50 में कैसे हैं? कंप्यूटर साइंस में हमारी रैंकिंग 43वीं है। इलेक्ट्रिकल में हम 41वीं और मैकेनिकल में 40वीं रैंकिंग पर है।

भास्कर एक्सपर्ट पैनल


प्रो. संजय गोविंद धांडे, डायरेक्टर, आईआईटी, कानपुर


प्रो. सुरेंद्र प्रसाद, डायरेक्टर, आईआईटी, दिल्ली


प्रो. शांतनु चौधरी, डीन, आईआईटी, दिल्ली


प्रो. अतानु घोष, डीन, आईआईएम, अहमदाबाद

रिसर्च और पेटेंट में हम कहां?

दुनिया में सबसे अच्छा इंजीनियरिंग संस्थान एमआईटी है इसलिए आईआईटी की तुलना भी इसी से...

- एमआईटी फैकल्टी की उल्लेखनीय रिसर्च (साइटेशंस) - 45 (पांच सालों के दौरान)
- आईआईटी फैकल्टी की उल्लेखनीय रिसर्च (साइटेशंस)- 03 (पांच सालों के दौरान)
- एमआईटी को एक साल में पेटेंट मिले - 102
- आईआईटी को एक साल में पेटेंट मिले - 06
- 1600 रिसर्च पेपर्स आईआईटी के अंतरराष्ट्रीय रिसर्च जरनल्स में छपे

एमआईटी के 75 फैकल्टी तो अभी भी पढ़ा रहे हैं जो नोबल पुरस्कार मिला है

एमआईटी का सालाना बजट सातों आईआईटी के कुल बजट का तीस गुना

- एमआईटी 250 बिलियन डॉलर (11250 अरब रु.)
- सात आईआईटी का कुल बजट 8 बिलियन डॉलर (360 अरब रु.)

- 1065 फैकल्टी पद खाली हैं सात आईआईटीज में (299 खड़गपुर, 222 मुंबई, 194 रुड़की, 138 मद्रास, 78 दिल्ली, 69 कानपुर, 65 गुवाहाटी)
- 280 फैकल्टी पद खाली हैं 2008 में खुले अन्य 10 नए आईआईटी में *(स्रोत - मानव संसाधन मंत्रालय)*
- 2773 कुल फैकल्टी पद हैं इन सात आईआईटीज में - यानी 38 प्रतिशत पद खाली हैं

आईआईटीज में फैकल्टी के पे-स्केल (प्रतिमाह रु. में)

असिस्टेंट प्रोफेसर	15600 - 38000
एसोसिएट प्रोफेसर	38000-53000
प्रोफेसर	53000- 75000

मैसाचुसेट्स इंस्टीट्यूट ऑफ टेक्नोलॉजी के (एमआईटी) पे-स्केल (प्रतिमाह लाख रु. में)

असिस्टेंट प्रोफेसर	2.77- 3.37
एसोसिएट प्रोफेसर	3.50- 4.87
प्रोफेसर	5.36

सातों आईआईटी के शिक्षकों से ज्यादा फैकल्टी है एमआईटी की

- 1708 शिक्षक फिलहाल हैं कुल मिलाकर सातों आईआईटीज में
- 1714 कुल शिक्षक हैं अकेले एमआईटी में

सिंगापुर यूनिवर्सिटी की इंजीनियरिंग फैकल्टी आईआईटी दिल्ली की फैकल्टी की पांच गुनी

Veer Arjun ND.09.05.11,P-11

पॉवर ग्रिड कार्पोरेशन के सीएसआर गतिविधि के अतंर्गत छह छात्र आईआईटी के लिए चयनित

वाणिज्य संवाददाता

नई दिल्ली। देश के सामाजिक एवं आर्थिक रूप से कमजोर वर्गों के आर्थिक एवं शैक्षणिक सुदृढ़ीकरण हेतु भारत सरकार के लोक उद्यमों द्वारा अपनी कार्पोरेट सामाजिक दायित्व पॉलिसी के माध्यम से किए जा रहे जन हित के कार्यों का असर अब दिखने लगा है। इसका ताजा उदाहरण देश की विद्युत पारेषण क्षेत्र के लोक उद्यम पॉवर ग्रिड कार्पोरेशन ऑफ इडिया द्वारा सहायतित दस छात्रों में से छह छात्रों का आईआईटी मे चयनित होना है। ज्ञातव्य है कि इस वर्ष पॉवर ग्रिड ने कोचिंग संस्थान सुपरब 30, दिल्ली सेंटर में आईआईटी की प्रवेश परीक्षा की तैयारी कर रहे छात्रों में से दस छात्रों को अपनी कार्पोरेट सामाजिक दायित्व पॉलिसी के तहत प्रायोजित किया था जिनमें से छह छात्रों का चयन हुआ।

इन छह छात्रों में से आर्थिक रूप से पिछड़े परिवार के दिल्ली के पालम निवासी अर्जुन ने 284वां रैक हासिल किया। पावर ग्रिड द्वारा जारी एक विज्ञप्ति में यह जानकारी दी गई। पॉवर ग्रिड आईआईटी में प्रवेश के इच्छुक आर्थिक रूप से विपन्न किन्तु प्रतिभाशाली छात्रों के चयन, ढांचागत सुविधाओं, संचालन लागत, कार्मिक लागत एवं परियोजना के समस्त प्रबंधन को वित्तीय सहायता उपलब्ध करा रहा है।