

## Newspaper Clips May 10, 2016

Times Of India ND  
10/05/2016 P-05

Times Of India ND 10/05/2016 P-02

### IIT-D to submit drainage plan by December

TIMES NEWS NETWORK

**New Delhi:** The drainage master plan, which IIT-Delhi was given the task to prepare in 2008, is likely to be submitted to the Delhi government by December this year.

In a review meeting held recently, IIT Delhi officials said that they had received only 80% of the data they need to prepare the master plan and if it were made available to them in the next two weeks, they should have it ready by December.

"Accordingly, directions have been given out to all concerned departments like the three municipal corporations, PWD, DJB, DDA etc to submit pending data to IIT at the earliest. There were some problems in the initial years and IIT was only able to start work properly by 2011-12," said a senior government official.

In the meantime, IIT has submitted a list of interim measures that the government should implement to keep its drainage system in order, which includes ensuring that no sewage is allowed to flow through drains. This, however, is an impossible task to achieve in a short period since most of the drainage is now mixed with the sewer system. In fact, DJB and the corporations both accept that several drains only have sewage flowing through them.

IIT has also asked the concerned agencies to ensure that no waste is allowed inside drains. For this, desilting needs to be taken up at an urgent basis and penalties imposed if someone is found violating this order. The issue becomes even more crucial with monsoon less than two months away and very little work has been done on desilting of drains so far.

# Biomass burning, vehicles to blame

## IIT Prof Calls NOx Another Cause Of Concern

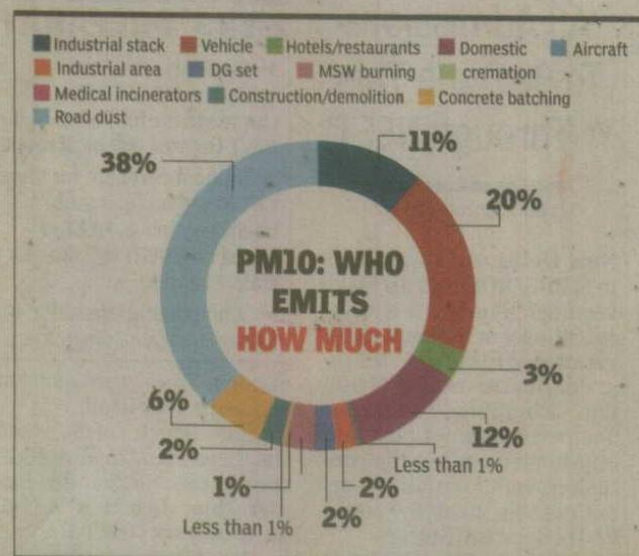
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**New Delhi:** Dispelling certain myths about factors contributing to the extremely high air pollution levels in Delhi, an IIT Kanpur professor said on Monday that biomass burning and vehicles were the most important sources of PM 2.5 emissions in winter.

Professor Mukesh Sharma, the author of IIT Kanpur's source apportionment study on Delhi's air pollution, was speaking at a programme organised by the Energy Policy Institute of the University of Chicago in the city. Treading carefully on questions pertaining to the highly toxic air in the national capital, he said, "An emission source may be very large but its impact may not be that significant. That needs to be studied very carefully." Sharma also shed light on various details of the 300-page report that he authored.

"What you are breathing or what is at the breathing level may be very different from the emission load. It can be misleading because, for instance, the contribution from vehicles is 20% but it's 25% closer to breathing level," he said addressing a gathering of academics, scientists and journalists.

Sharma, who spoke at a public platform for the first time after his report was released, told **TOI** that biomass burning, secondary particles and vehicles played a crucial role in shooting up the pollution levels. The IIT Kanpur report has revealed that second-



ary particles, which are formed as a result of chemical reactions between gases such as sulphur dioxide (SO<sub>2</sub>) and oxides of nitrogen (NO<sub>x</sub>) and not emitted directly from a particular source, pose a large problem. The secondary particles could be from vehicles, power plants or other sources.

When someone from the audience asked Sharma, "So what would be the new pie chart if you considered health impacts?" he said he would address the issue in the "next study". To another question how to reduce air pollution, he said the "regional background levels" or "blanket levels" needed to be addressed, along with local factors.

"The PM 2.5 levels are very similar in NCR. Inferences should be drawn while keeping that

in mind," he said adding besides the PM 2.5, oxides of nitrogen (NO<sub>x</sub>) also needed urgent attention. High vehicular traffic causes NO<sub>x</sub> emissions.

Sharma also talked about "fingerprints" of each pollution source. For instance, when metals or chemical elements are apportioned in winter, 30% of the mix is potassium (K), which is a proxy for biomass burning. In summer, silica is higher in the mix, which means silica is very much present in dust.

Sharma, however, declined to comment on the Delhi government's odd-even strategy as well as the restrictions on diesel vehicles being considered by the SC. He also highlighted how the Chinese government has pledged \$277 billion to combat pollution in four cities.

# Why PM emission from fly ash can't be ignored

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**New Delhi:** Natural dust may be one of the biggest sources of air pollution in the city, but it's masking a more dangerous one — fly ash. IIT-Kanpur's recent source apportionment study for Delhi's pollution sources has flagged off fly ash as one of the major contributors to particulate matter emission.

The revelation has shocked doctors and experts alike because with the shutting down of most thermal power plants, it was believed that fly ash generation might have reduced over the years.

According to the IIT-Kanpur report, coal and fly ash contribute to around 37% and 26% of PM10 and

PM2.5, respectively. In summer, Road dust contributes to 26-27% of PM10 and PM2.5, the figures are 7-12% for biomass burning.

The report said: "Unless sources contributing to fly ash are controlled, one cannot expect (an) improvement in air quality. It appears that these sources are more fugitive in nature than regular point sources. However, two large power plants in the city are also important sources of fly ash."

It added: "Probably the major part is re-suspension of fly ash from fly ash ponds — in use or abandoned — which are not maintained properly and become dry in summer." The study also highlighted that the persistent presence of road dust

## NGT again asks govt to take note of pollution from dust, waste burning

The National Green Tribunal on Monday asked the Delhi government as to why it was not emphasising on the issues of pollution from dust and waste burning the way it had stressed on the odd-even scheme. "Why do not you (Delhi government) emphasis on the issues of dust and waste burning in a way you have emphasised on odd-even? Get complete instructions on these issues," a bench headed by NGT chairperson Justice Swatanter Kumar told the counsel for Delhi government. The tribunal was also irked that neither the Delhi government nor the Central Pollution Control Board have furnished reports on data of ambient air quality in Delhi recorded during the recently concluded second phase of odd-even scheme.

and coal/fly ash particles "encompasses Delhi like a layer". In summer, the atmosphere looks "whitish to greyish", indicating large amounts of fly ash and dust. Contribution from fly ash, however, reduces significantly in winter when wind speed is low.

A large amount of fly ash generation could also be from batching plants for construction projects "because pozzolan cement used in the process has about 35% fly ash in it,"

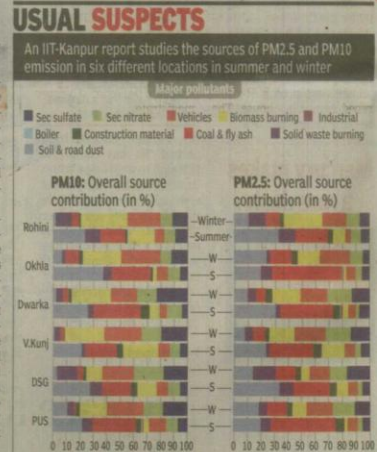
the report said. It suggests control measures like wind breakers, bag filter at silos, enclosures, hoods, curtains, telescopic chutes, cover transfer points and conveyor belts.

Fly ash exposure is linked to a number of severe health impacts. Dr TK Joshi, project director at Centre for Occupational and Environmental Health (COEH), said: "Several years ago, when I would cross the Indraprastha power station, the place was full of fly ash because there were no fly ash ponds then. Now, fly ash is being used for brick manufacturing and there are ponds to dispose fly ash. I am shocked that the menace is back."

He added that "fly ash is sticky and toxic unlike natural dust. It contains heavy metals like lead, chromium and

aluminium. It also contains arsenic. It is bound to affect the airways, cause allergies, increase the incidence of asthma, chronic obstructive pulmonary disorder and increase the risk of cancer." IP and Rajghat power plants have already been closed down.

Umesh Kulshrestha, professor, School of Environmental Sources, said there were short- and long-term impacts of exposure to fly ash. Allergies and inflammation can happen in the short term, but long-term exposure had far serious issues. "There are three types of dust — natural, road and construction dust have health effects. I think we have enough policies to deal with fly ash, but they are, perhaps, not being executed properly"



# Financial Express ND 10/05/2016 P-05

# IIT Madras-incubated water tech firm raises \$18 million

**fe Bureau**

**Chennai, May 9:** InnoNano Research (INR), a clean water technology company incubated at IIT Madras has entered into an agreement with NanoHoldings (NH), an energy and water investment specialist firm from US, to set-up a global water technology company with an investment plan of \$18 million.

With an aim to making India an exporter of water technologies, the company plans to set up a manufacturing facility, a modern research laboratory and technology delivery offices across North America, Asia and Africa. Nano Holdings, has supported global patenting activity for the team and IIT Madras for the past four years.

"These technologies are destined



to change the world in a significant way," said Justin Hall-Tipping, CEO, NH.

This is perhaps first of its kind global expansion programme for academia-born Indian material technologies in India. "IIT Madras is delighted that research at the cutting edge of materials science has

led to applications at the very core of human well-being, namely, supply of safe drinking water," said Prof Bhaskar Ramamurthi, director of IIT Madras.

Prof Pradeep, co-founder and advisor of INR said, "Making our science challenging to academia and simultaneously delivering solutions to the common man is an enormous challenge, but we find a purpose there. Water is an area where India needs self-reliance and every technology and every effort matters in this noble objective.

Water technologies have to be inclusive as water itself presents enormous diversity, both locally and globally. This would not have happened without the sustained support of Department of Science and Technology, government of India".

Dainik Bhasker ND 10/05/2016

P-03

## जुलाई से शुरू होगा आईआईटी धनबाद, तीन कोर्स से शुरू होगी शिक्षण प्रक्रिया

इंडियन इंस्टीट्यूट ऑफ टेक्नोलॉजी, धनबाद इस वर्ष से नए एकेडमिक सेशन से चालू हो जाएगी। शुरुआत में तीन स्ट्रीम- कम्प्यूटर साइंस, मैकेनिकल और इलेक्ट्रॉनिक्स इंजीनियरिंग में छात्रों को प्रवेश दिया जाएगा। यह कैम्पस 120 छात्रों के साथ शुरू होगा और हर स्ट्रीम में 40 स्टूडेंट होंगे। फिलहाल यह अस्थायी कैम्पस में चलाया जाएगा, जब तक कि नया कैम्पस बनकर तैयार नहीं हो जाता। अस्थायी कैम्पस वॉटर एंड लैंड मैनेजमेंट इंस्टीट्यूट में चलाया जाएगा। धनबाद जिला प्रशासन से केमिस्ट्री, फिजिक्स और कम्प्यूटर साइंस के लिए तीन लैब मांगी गई है। आईआईटी बॉम्बे को इसका मेंटर बनाया गया है। आईआईटी बॉम्बे की पांच सदस्यीय टीम ने कैम्पस विजिट कर कुछ अधिकारियों के साथ मीटिंग भी की। राज्य सरकार के साथ एमओयू पर हस्ताक्षर करने के बाद वॉटर एंड लैंड मैनेजमेंट इंस्टीट्यूट में अस्थायी कैम्पस के लिए 5 वर्ष का करार किया गया।

Hindu ND 10.05.2016 P-08

## ‘BHU not letting me rejoin duty’

OMAR RASHID

**LUCKNOW:** Social activist and Magsaysay awardee Sandeep Pandey, whose termination order from the Banaras Hindu University (BHU) was struck down by the Allahabad High Court last month, on Monday alleged that the varsity was unduly delaying his reinstatement and plans to file a contempt petition against it.

As Mr. Pandey's contract expires on July 31, he fears the delay could effectively block his return to the classroom.

### Sacked in January

Mr. Pandey who was teaching as a Visiting Faculty in the Department of Chemical Engineering of the IIT-BHU, was in January sacked by the varsity on charges of engaging in activities that were

against the nation's interest. He was also allegedly tagged a "Naxalite."

On April 23, the Allahabad High Court quashed his termination order.

Mr. Pandey, however, said his re-entry was being delayed unreasonably.

"After submitting the certified copy of the HC order on April 30, we agreed on a mutually convenient date for me to join — May 7. But on reaching

there, professor Rajeev Sangal, IIT-BHU director, informed me that the vice-chancellor professor Girish Chandra Tripathi, who also happens to be the Chariman, IIT-BHU Board of Governors, has not yet returned the file in which his advice was sought in the matter of my rejoining. Effectively, the VC has decided to delay the compliance of HC order," Mr. Pandey said.

### Startup magic fades at IIT placements

<http://timesofindia.indiatimes.com/tech/jobs/Startups-magic-fades-at-IIT-placements-as-companies-face-funding-issues/articleshow/52182847.cms>

MUMBAI: Startups are sending shivers down the spines of students at the top Indian Institutes of Technology. Once the most sought-after for placements, some startups have started withdrawing job offers at IITs in Delhi, Mumbai, Roorkee and Guwahati because they've either shut shop or are closing some operations.

Others are delaying joining dates as uncertainty, a funding slowdown and pressure on profitability force them to go slow on hiring, according to placement managers at these campuses.

At IIT Delhi, two startups withdrew job offers after they closed down, while another two made offers but could not keep the commitments, said Anishya Madan, industrial liaison officer, training and placement at the institute.

"This is not a good sign. This leads to a lot of uncertainty," she said. She refused to share the names of the startups that withdrew the offers.

Ecommerce companies such as Ola are finding it difficult to take on students they've hired and are delaying the process, according to IIT officials. Startups that have withdrawn offers at IITs include Zimply Home Shopping and PepperTap.

"While one startup withdrew offers given to six students, a few others are saying they will come up with later joining dates as some businesses they had hired for are not doing well," said Ayush Lakhota, placement coordinator at IIT Bombay. "There is a lot of suspicion and concern among students this time when it comes to startups," he said.

Cab aggregator Ola did not immediately respond to an email seeking comment. PepperTap has shut operations. Zimply Home Shopping officials could not be reached.

Although several new startups visited the top IIT campuses this year, the number of hires by companies such as Flipkart, Ola and Snapdeal has dropped significantly from a year earlier as investors put pressure on companies to save costs and improve cash flows, the placement officials said.

"In January, Zimply Home Shopping said they are ceasing operations in certain cities and cost-cutting. They had taken five students from IIT Guwahati but withdrew all five offers," said Harish Bohara, student coordinator of placements at IIT Guwahati.

InMobi and Roadrunnr have delayed joining dates to October and December, respectively. Roadrunnr, a hyperlocal delivery startup, has stated it is expanding, while mobile advertising platform InMobi hasn't provided any reason, according to Bohara.

All students have been allowed to sit for placements again and most of them have been selected elsewhere, he said. At IIT Roorkee, three startups changed offers made to students. One cancelled the offer in the first week of February and the other two delayed the hiring of 10 students.

"Normal date of joining is in July. They have so far delayed it till November. Students are pretty tense. There is a slowdown in startup market and established startups are going down. Students are now looking for backup," said Himanshu Bansal, placement coordinator at IIT Roorkee.

"We have not seen this in our campus so far, but I'm hearing about it from other IITs," said Babu Vishwanath, professor of mechanical engineering at IIT Madras. Placements at IIT Madras were delayed due to floods in December. Top ecommerce firms including Flipkart, Ola and Snapdeal backed out after registering to visit.

Institutes and students are reaching out to executive search firms for assistance. "We are getting calls from tier I and II

institutes as many students have had offers withdrawn," said Kris Lakshmikanth, CEO of The Head Hunters. "Most joining dates are in June. That is the time this will explode," said recruitment agency officials.

## **Govt to set up six new IITs, says Irani**

<http://timesofindia.indiatimes.com/city/delhi/Govt-to-set-up-six-new-IITs-says-Irani/articleshow/52193476.cms>

New Delhi, May. 9 (ANI): The Central Government has decided to set up six new Indian Institutes of Technology (IITs) at Palakkad (Kerala), Tirupati (Andhra Pradesh), Bhilai (Chhattisgarh), Khanpur Nagrota (Jammu and Kashmir), Goa, and Dharwad (Karnataka), said Human Resource Development Minister Smriti Zubin Irani in a written reply to a Lok Sabha question on Monday.

The Cabinet had on December 2, 2015 approved operationalisation of these six new IITs as Registered Societies under the Societies Registration Act, 1860 in order to give legal status to these IITs.

Each new IIT will have an initial intake of 180 students in its first year, which would subsequently increase to 450 in the second year and to 928 in the third year.

The total cost for running these IITs is Rs. 1,411.80 crore to be incurred between 2015-16 and 2018-19. Academic Sessions in IIT Tirupati and IIT Palakkad have commenced in 2015.

The setting up of new IITs is aimed at expanding the access of premier education to students of the country, and is based on various factors such as the existing regional distribution of Central Education Institutions in the country.

Most of the IITs set up in 2008-09 have fared well in the rankings released under the National Institutional Ranking Framework (NIRF) on April 4, which were based on various parameters, namely, teaching learning and resources, research professional practice & collaborative performance, graduation outcome, outreach & inclusivity and perception.

## **Oxygen founder, IIT-Roorkee set up a startup accelerator**

<http://timesofindia.indiatimes.com/tech/tech-news/Oxygen-founder-IIT-Roorkee-set-up-a-startup-accelerator/articleshow/52196905.cms>

Chennai: Founder of mobile wallets platform Oxygen wallet Pramod Saxena on Monday launched Aarambh Ventures, a startup accelerator in partnership with IIT Roorkee.

Signing an MoU for an equal partnership with the institute, Saxena has brought on to the platform early stage funds such as Unitus Seed Fund, IvyCamp funds etc, and high net worth individuals who would be funding the startups accelerated in Aarambh.

The accelerator is open to students, faculty and alumni of IIT Roorkee who will initially hone the ideas in the 'idea lab' set up at the IIT Roorkee campus.

The accelerator at the Noida campus of the college will house those who have graduated from the idea lab in a 16 week programme. Investment gone into the accelerator was undisclosed. "Startups in the fintech and the mobile internet space and in the clean energy space products such as hybrid and electric cars will be focused on. While it is open for IIT Roorkee's students, alumni and faculty for now, later, startups from other IITs would also be invited," said Pankaj Saxena, founder, Oxygen Wallet. Saxena is an alumnus from the institute. While the campuses would provide the space,

access to infrastructure, Saxena would bring in the investors and experts. "We will be able to pitch in with the ideas of our faculty as and when needed," said Pradipta Bannerjee, director, IIT Roorkee.

### **IIT-H centre to train healthcare innovators**

<http://www.newindianexpress.com/cities/hyderabad/IIT-H-centre-to-train-healthcare-innovators/2016/05/10/article3424857.ece>

HYDERABAD: Have an innovative idea in healthcare? To encourage students to come up with solutions to India's many healthcare ailments, two IIT-Bombay alumni are offering a one-year fellowship of `50,000 per month.

Preparatory to selection to the fellowship, the Centre for Healthcare Entrepreneurship at IIT-Hyderabad will throw open its doors to a maximum of 12 potential entrepreneurs who will take up a residency programme on campus.

The training will be hands-on in a simulated environment, followed by an opportunity to incubate their idea. They will get access to technological expertise at IIT-H and exposure to local and global venture capital partners.

"This is the first programme in the IIT which is trying to get engineering, science, medicine and product design at one place so as to create a commercial solution in healthcare. To fast-start the innovation, we are trying to get all the stakeholders involved on a single platform so that the innovators get easy access to venture capitalists and incubators. At the end of the programme, they will be provided with incubation grant," Raj Mashruwala, alumni of IIT Bombay, who kick-started this project, said. Candidates with an engineering or medical background with a passion for entrepreneurship in healthcare are eligible to apply for the fellowships. At the end of training, those short-listed will qualify for an incubation grant.

"The Center for Healthcare Entrepreneurship will give the selected fellows an opportunity to use all its resources to test their ideas and designs. The centre includes faculties and students spread across 13 disciplines including engineering disciplines, design, humanities and liberal arts," said Prof. Renu John, Head, Center for Healthcare Entrepreneurship.

### **IIT-Bombay professor leads way to save water**

<http://www.hindustantimes.com/mumbai/iit-bombay-professor-leads-way-to-save-water/story-iCsJBZUObYbz3FJtI4PbiP.html>



The wetland project at IIT-Bombay started in November 2013 and is an idea from professor Shyam Asolekar from the Centre for Environmental Science & Engineering .

At a time when the state is dealing with severe water crisis, a professor from the Indian Institute of Technology Bombay (IIT-B) and his team of students have created a wetland at the institute's Powai campus that processes approximately 30,000 litres of sewage per day and converts it in to re-usable water.

According to Mumbai's municipal corporation, an average resident of Mumbai uses 135 litres of water every day. The research plant currently treats, without chemicals and electricity, wastewater generated by nearly 300 students living on the campus.

The project, called the Constructed Wetland (CW) plan, started functioning in November 2013 and is an idea from professor Shyam Asolekar from the Centre for Environmental Science & Engineering and his research team comprising of PhD and MTech students and research engineers, Dinesh Kumar, Rahul Sutar, Dheeraj Kumar, Ketan Kamble and Anurag Singh and advised by Yogen Parikh.

"A constructed wetland bed is a natural treatment system that does not need energy or chemicals to clean wastewater. It traps the foul odour below the wetland bed and treats sewage through a continuous biotechnological process once the wastewater is released into the wetland bed," said Asolekar.

The artificial wetland bed, having dimensions of 13 m length, 3 m width and 0.6 m depth, approximately equal to an area of 450 square feet - about the size of a one-bedroom-hall-kitchen flat - is covered by almost 1000 plants of one wetland species, *Canna indica*, Sewage water is released into the beds through a pipeline, diverted from the main sewer lines to the pilot plant for research purposes.

"The roots of the living plants in the wetland provides a peculiar habitat for beneficial microorganisms in the root-zone (which also pump oxygen from the atmosphere into the bed) and jointly purify the sewage while the plants are automatically nurtured by utilising carbon, nitrogen and phosphorous from sewage," said Asolekar.

The treated water can be used for a variety of reusable purposes including drinking water for animals, irrigation in farms and gardens, and water for flushing and washing.

Co-funded by the European Commission and IIT-B, the project cost for developing this technology as well as building this pilot plant was close to Rs 4 crore. After the successful demonstration of the CW technology on IIT-B campus, three similar CWs have already been commissioned at three separate locations across Maharashtra.

## SCHOLARLY OUTPUT

# Engineering is most impactful field of research in India: report

Research in chemistry and pharmacology most cited; India's share of patent citations was at 2.9% in '13, says study

By NIKITA MEHTA  
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NEW DELHI

India's most impactful field in terms of research output is engineering while its most prolific in terms of citations are chemistry and pharmacology, according to the Elsevier Report 2016, commissioned by the Department of Science and Technology.

The report looked at India's contribution in the field of science and technology in terms of volume of research papers, global share and citation impact.

The report said India's scientific publications grew 13.9%, as against the global average of 4.1%, during 2009-13.

Various indicators show India has a small but growing share of the world's total scholarly output.

India's share of the world's science and technology scholarly output has grown from 3.1% in 2009 to 4.4% in 2013—from 62,955 papers in 2009 to 106,065 papers in 2013.

Scopus is Elsevier's abstract and citation database of peer-reviewed literature and covers 60 million documents published in over 22,000 journals, book series and conference proceedings by nearly 5,000 publishers.

India's share of the world's patent citations increased from 2.2% in 2009 to 2.9% in 2013.

"Although India is still a relatively small player on the global scientific stage, its wide-ranging collaboration network and increasing share of the world's main research performance indicators reflect its overall growth in output, impact and knowledge transfer," said the report.

In terms of knowledge transfer, India shows a higher emphasis in areas of computer science, material science, chemistry and

## WHAT ARE INDIAN SCIENTISTS RESEARCHING?

### India's patent citation focus (2009-13)

- Materials science
- Chemistry
- Pharmacology
- Toxicology and pharmaceuticals

### India's research focus

Chemistry and pharmacology

### India's most impactful field

Engineering

### India's patent citations 'n 2013

109 Patents  
2.9% of the world's citations

### Highest institutional citation per paper

Tata Institute of Fundamental Research

### Active researchers per subject area (2009-13)

Medicine	118,305
Engineering	87,780
Biochemistry, genetics and molecular biology	87,285
Pharmacology, toxicology and pharmaceutics	69,369
Chemistry	64,492
Computer science	61,279
Agricultural and biological sciences	59,988
Materials science	51,338
Physics and astronomy	49,758
Environmental science	41,232

### Top 10 institutes by number of publications (2009-13)

Indian Institute of Science, Bangalore	10,086
Indian Institute of Technology, Kharagpur	7,710
Indian Institute of Technology, Delhi	6,984
University of Delhi	6,984
Anna University	7,109
Indian Institute of Technology, Madras	6,221
Indian Institute of Technology, Bombay	6,168
Jadavpur University	6,261
Banaras Hindu University	6,410
Indian Institute of Technology, Kanpur	5,111

### Subject areas focused on by the top 30 institutes



Source: Elsevier, Ministry of Science and Technology

ANHEM RAZA KHAN/MINT

pharmacology, toxicology and pharmaceuticals. Knowledge transfer includes analyses of patent citation patterns and collaborations between academic and corporate research institutions.

"As a whole, there is a promising trend as more Indian research is included in global journals and more institutes are regularly making appearances in such databases. It has also been seen that collaboration is expanding to not just include OECD (Organisation for Economic Cooperation and Development) partners, but others such as Brazil, China and Iran," said Sujit Bhattacharya, senior principal scientist, Council of Scientific and Industrial Research-National Institute of Science, Technology and Development Studies.

Bhattacharya, however, added that publishing in high-impact journals is not visible to the extent one would expect from a country like India.

"There could be many reasons for this. Either papers have not reached the required mark or there are also cultural barriers that developing countries such as India face when it comes to citations," he said.

### Standout institutes

The Indian Institute of Science, Bangalore, is the most prolific and in the most number of subjects, with the highest number of publications between 2009 and 2013 in six of the 16 subject areas, which include physics and astronomy, biochemistry, genetics and molecular biology, material science, chemistry, mathematics, and earth and planetary sciences.

The Indian Institute of Technology, Kharagpur, has the most publications in engineering and chemical engineering, and the Indian Institute of Technology, Delhi, has the most in the energy area.

Anna University, in Guindy,

Chennai, tops both in computer and environmental sciences, while Banaras Hindu University leads in three subject areas—agricultural and biological sciences, immunology and microbiology, and veterinary sciences.

The Postgraduate Institute of Medical Education and Research, Chandigarh, and Annamalai University, in Chidambaram, Tamil Nadu, take the lead in medicine, pharmacology, toxicology and pharmaceuticals.

In terms of academic impact and citations, the three institutions that lead are the Tata Institute of Fundamental Research, Mumbai, Panjab University, Chandigarh, and the Indian Association for the Cultivation of Science, Kolkata.

Thirteen of the 30 top academic institutions have a strong specialization in engineering, while the most common specialized subject areas are chemistry, engineering, physics and astronomy.



# IIMs get deferred placement scare

## Many start-ups postpone joining dates of new recruits by 3-6 months

VINAY UMARJI

Ahmedabad, 9 May

Placements in start-ups at Indian Institutes of Management (IIMs) seem to be on shaky ground, months after the process was completed.

IIMs have been told by firms like CarDekho and Hopscotch among others, that joining dates for candidates have been deferred by three to six months, leaving students and B-schools jittery. According to the companies and IIMs, both old and new institutes such as IIM Ahmedabad (IIM-A), IIM Bangalore and IIM Udaipur, have witnessed such a trend. In all, roughly 200-250 students are believed to be affected by deferred joining across B-schools.

Confirming the move, Amit Jain, chief executive officer and co-founder, Girmarsoft, which owns CarDekho.com, said the start-up was readying its new campus to accommodate the fresh recruits, which would be up in three to four months.

"We have postponed the joining by two months. I think around 30-40 candidates would see a joining delay. We are 3,000-odd people and are creating additional working space, which is why the delay," said Jain, adding that among the IIMs from where the company

recruited, it has put students from IIM-A on priority joining. Email queries sent to IIM-A and Hopscotch remained unanswered.

While CarDekho.com has delayed the joining due to lack of workspace, B-schools say most start-ups have not given any specific reason for such a postponement.

"The usual joining dates are by May or June, but the deferment is big this time, extending up to September-October. Moreover, most of them are not even communicating the

reasons. It is only through students and hearsay we understand that in some cases, it is also due to lack of funding or slack in operations," said a placement coordinator of one of the older IIMs on condition of anonymity.

Some IIMs are also reaching out to these start-ups to find a way around and avoid such deferment. "We are working with these start-ups to see what can be done. But the firms should understand that they cannot postpone it like this," the coordinator said.

According to IIM Udaipur too, deferment notices are not being routed through the campus.

"There has been one firm that has deferred the joining of students for final placements. The joining is now slated for September and six students were recruited by this firm. Its communication has not been routed through the campus and students have been informed directly," said Shabbir Husain, manager, Corporate Relations, IIM Udaipur.

However, start-ups are observing summer internship commitments, IIMs said.



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# One-track career aim of MBA aspirants

M SARASWATHY  
Mumbai, 9 May

Business school candidates are more focused on a single sector and consider applying to fewer programme types, said the Graduate Management Admission Council (GMAC) in its latest *mba.com Prospective Students Survey Report*. GMAC is a global organisation that conducts the GMAT exam for business schools. The survey said these candidates were more focused on a particular postgraduate career path. On an average, students considered 2.8 programme types in 2015, down from 3.1 in 2014. For their postgraduate careers, 71 per cent of those surveyed cited a single sector of interest, compared with 58 per cent in 2014.



**On an average, students considered 2.8 programme types in 2015, down from 3.1 in 2014.**

In addition, 61 per cent cited a single job function of interest, compared with 46 per cent in 2014. The survey explored candidates' perspectives — analysing the motivation, intended career outcomes and programme choices shared by about 10,000 individuals worldwide.

"Each year, graduate business programmes set admission goals to engage students across the world who are the most likely to succeed in their classrooms," said Bob Allg, GMAC's executive vice-president for school products.

Globally, 50 per cent of prospective students are considering only MBAs, and 28 per cent are considering both MBA and specialised business master's programmes.

Also, 23 per cent are considering only specialised business master's programmes, such as a master's in accounting or master's in finance, which represents an increase since 2009, when 15 per cent of candidates were considering only specialised master's programmes.