Newspaper Clips
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Heavy night traffic ate into odd-even gains

http://timesofindia.indiatimes.com/city/delhi/heavy-night-traffic-ate-into-odd-even-gains/articleshow/57863258.cms

NEW DELHI: A study on Delhi's odd-even trial has suggested that the road rationing scheme did improve air quality during the trial hours — especially during peak traffic hours — but those gains were lost due to heavy car and truck traffic during the non-trial hours between 8pm and 8am.

In addition to emissions from commercial vehicles, increased traffic at night after the odd-even hours may have led to the increase in the 24-hour average particulate matter (PM) values, reveals the study by *IIT Delhi* in collaboration with University of Surrey, University of Birmingham and others. It also found that the baseline concentrations —those excluding local emission sources such as vehicles estimated by *IIT Delhi* — at various locations were already high and masking the improvements from the odd-even trial.

The study used data from Delhi Pollution Control Committee (DPCC) to make their assessments for Anand Vihar, Mandir Marg, RK Puram and Punjabi Bagh. Except for RK Puram, all are near heavy traffic zones. It considered hourly averages for the odd-even days in January and April 2016 and the PM data for the same dates in 2015.

Researchers also found that meteorological factors like wind speed and direction played an important role. So while overall PM levels may have been higher during the odd-even phase in 2016 compared to same dates in 2015, it doesn't mean that the scheme failed to make a difference. "Observations clearly indicate that the comparison of the trial periods... will be affected by different background concentrations. Therefore as a necessary step, we estimated the baseline (local site background) concentrations at our selected sites."

Baseline PM concentrations at all of these locations are taken and subtracted from the actual hourly concentrations to arrive at the net concentrations that can be attributed to vehicles. The team found there was a reduction in both net PM2.5 and PM10 concentrations during January and April trial hours but concentrations were much higher during the morning hours of odd-even and non-odd-even hours. "This seems likely to be related to the time taken for dispersion of the pollutants emitted overnight. The effect of the odd-even hours during winter ranged from a minimal reduction of -2% to a maximum reduction of -44% during peak traffic hours across the studied sites. This effect was relatively larger during summer with the corresponding reduction of -2% to -74% for PM2.5 compared to the 2015 levels."

Professor Mukesh Khare of IIT Delhi, co-author of the study, said, "If the government is considering implementing the scheme again, they should consider staggered timings so that there is no sudden jump in emissions."

"The real gains can only be achieved by restricting the entry of heavy goods vehicles during night hours," said the study, adding that commercial vehicles contribute to nearly half of the PM10 emissions from the exhaust of on-road vehicles in Delhi.

This is the first study to have singled out vehicular emissions to assess the impact of odd-even. Based on data assessment of previous years, scientists arrived at a baseline for each of these stations. The baseline PM2.5 was found to be the lowest and the highest at 12 and 113 micrograms per cubic metres at RK Puram and Anand Vihar, respectively.

Before another round, measures should be taken to "enable either full source apportionment of the particulate matter, or as a minimum, measurement of chemical tracers for road traffic emissions", the study concluded.

IITK to become first institute to develop sewage treatment plant

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

KANPUR: The Indian Institute of Technology is set to become the first technical institute in the country to take the lead in treating sewer drain water before it falls into the Ganga. The institute will set up a treatment plant near one of the largest sewer drains in Kanpur which passes through Sisamau. The incharge of National Ganga River Basin Authority (NGRBA) and a senior professor at the IITK Dr Vinod Tare has asked the Kanpur Municipal Corporation (KMC) to allot 1800 square feet land near the Sisamau drain free of cost for the development of water treatment plant. Municipal commissioner Umesh Pratap Singh has accepted the proposal and executive engineer, KMC, RK Singh has sought details of the project so that a no objection certificate (NOC) can be issued. The Sisamau drain carries over 1400 crore litres of sewage water every day.

IIT Kharagpur hosts students from George Washington University Law School

http://timesofindia.indiatimes.com/city/kolkata/iit-kharagpur-hosts-students-from-george-washington-university-law-school/articleshow/57854839.cms

KOLKATA: The Rajiv Gandhi School of Intellectual Property Law (RGSOIPL), IIT Kharagpur, hosted students from George Washington University Law School this spring semester. The only Law school in the IIT system, seed funded by IIT Kharagpur alumnus Vinod Gupta, is now regarded as India's top destination for legal education and research. iT has also established collaborative and exchange programs with the much reputed GW Law School.

The School which primarily specialises in Intellectual Property Law has also expanded to other areas of legal education such as Corporate Laws, Taxation, Criminal Laws, International Law, Constitutional Law and Competition Law.

"With the government's mandate of bringing in foreign students and promoting internationalisation of IITs, such international semester programs pave the way for institutions and the global community in promoting India-bound student traffic as well as exposure of Indian students abroad while studying in India. IITKGP has been a trendsetter in various disciplines introduced in the IIT system and I am proud of the fact that, it is setting a new trend by bringing foreign students for legal education in India as against old time sake when Indian legal scholars used to go abroad to become law practitioners and professionals," said Khushal Vibhute, dean, RGSOIPL.

Faculty members of GW Law School have provided guest lectures at RGSOIPL and each school has sent two groups of students to the other school for a week visit. For the students from GW Law School, the week allowed them to attend classes at RGSOIPL and interact with their Indian counterparts at the IIT Kharagpur campus.

At the week's start, Martin Adelman, Susan Karamanian, associate dean for International and Comparative Legal Studies at George Washington University Law School and Pillsbury partner Raj Dave alumnus of IIT Kharagpur and GW Law School joined the students and participated in a patent law forum at RGSOIPL's Benjamin Gupta auditorium, which is named after former GW Law student Ben Gupta.

According to associate dean Karamanian, "The GW Law community has had the privilege of working with one of the world's top universities in helping establish a top-flight law school. Our students and faculty are indebted to Ben Gupta, Raj Dave, and the faculty, staff, and administration of the IIT KGP for their steadfast support of the GW Law-RGSOIPL relationship."

Another group of students from RGSOIPL is scheduled to visit GW Law School in April 2017 to attend classes and meet their GW Law counterparts as well. Gupta has continued his support towards student and faculty exchanges. With e-commerce and licensing going beyond national boundaries such a transnational legal education, especially in intellectual property law becomes imperative.

For Vinod Gupta, the visits are expected to lead to life-long friendships between students from India and the United States and a shared understanding of each other's respective cultures. Nathan, an economics major from the University of Cincinnati who is interested in IP and technology and who serves as Notes Editor of the American Intellectual Property Law Association Quarterly Journal, appreciated learning "about how IP law is taught in India, and the context in which the professors and students focus on the material and how it is presented.

"In his mind, "the most valuable part of the trip was building relationships with the IIT Kharagpur law students. They value legal education like I do but the most rewarding part of the trip was getting to connect on a personal level with the students and build significant friendships."

Siddhi, who holds a BSE in Computer Engineering, BS in Computer Science and MS in Computer Science, all from Arizona State University, said that she and her GW Law classmates enjoyed their time with the students at IIT. "Also, the professors there helped us to understand and compare Indian copyright and patent laws with US laws," she said.

Not only El Nino, aerosols too affect influence monsoons, says IIT Bombay study

http://www.hindustantimes.com/mumbai-news/not-only-el-nino-aerosols-too-affect-influence-monsoons-says-iit-bombay-study/story-EomC3d2MGMo928RLkfk78K.html

It’s not just global weather phenomena like El Nino or La Nina that determine the strength of the monsoon, but also concentration of suspended particles — aerosols. High concentration of aerosols in the atmosphere influences rainfall in India, revealed a study by the Interdisciplinary Programme in Climate Studies (IPCS) at the Indian Institute of Technology, Bombay.

A three-member team studied satellite and ground-based observations of aerosol and cloud properties between 2000 and 2009, over the core monsoon region of India – central north-east, central west, and north-west – that records 85% of rainfall. Aerosols are tiny solid and liquid particles in the air that originate from man-made activities such as burning of agricultural waste and forests, biomass burning industries, power plant smoke, as well as in natural form like dust, volcanic ash and sea salts. “When we looked at the data separately in abundant and deficient monsoon years, we found that a mix of atmospheric particles and dust are modifying clouds, thereby affecting rainfall patterns,” said professor Chandra Venkatraman, co-author and convener, IPCS.

Researchers said understanding aerosol-cloud-rainfall interactions could help improve the physics of climate models for climate prediction.

During monsoon breaks, the levels of suspended particles start building up. The team found that during years of deficient rainfall, higher concentration of aerosols resulted in smaller cloud drop sizes, shallower cloud heights and less cloud-ice formation. However, in years the country received abundant rainfall, higher aerosol levels resulted in the opposite. “We know that changes in cloud properties with increased aerosol levels during deficient years could inhibit cloud development and rainfall, and a similar phenomenon during abundant years could lead to cloud invigoration and intensify rainfall,” said Venkatraman.

Deficient rainfall years are marked by lower availability of moisture, less upward wind motion (convection), along with less cloud coverage. On the other hand, abundant rainfall years have higher vertical wind and moisture transport.While large-scale processes such as El Nino, La Nina, sea surface temperature and ocean warming have been well-studied, researchers said the impacts of local processes such as aerosols and deforestation on the monsoon need attention. “Long monsoon breaks of more than seven days can lead to rainfall deficits and impact crop production. Therefore, studies need to be conducted to see if aerosols are intensifying deficits in rainfall in some regions or invigorating with great intensity,” said the IPCS team.

WHAT ARE AEROSOLS?

Aerosols are tiny solid and liquid particles in the air originating from manmade activities such as burning of agriculture waste and forests, biomass burning industries, power plants smoke, as well as natural in the form of windblown dust, volcanic ash and sea salts.

Global studies are on to understand the impact of aerosols on the environment. Researchers said certain aerosols are important, while some are bad for the climate and health

Man-made aerosols comprising carbon and sulphur compounds that are being emitted by industries and vehicles in large quantities are harmful and toxic

Increasing concentration of aerosols in the atmosphere can block sunlight, and affect visibility

On the other hand, if there is solar light but there no aerosols in the atmosphere, human beings will not survive due to the amount of heat in the atmosphere. Naturally occurring aerosols cool the earth.

The paper ‘Contrasting influences of aerosols on cloud properties during deficient and abundant monsoon years’ by PhD students Nitin Patil and Prashant Dave, with Professor Chandra Venkataraman was published in Scientific Reports of the Nature Publishing Group (NPG) on March 24, 2017.

Harsh Gupta Becomes IIT Gate Topper, Gets All India Rank 1 In Chemical Engineering

http://scrolltoday.com/harsh-gupta-becomes-iit-gate-topper-gets-india-rank-1-chemical-engineering/

Happiness is spread everywhere in this Gupta family in Jaipur as by their younger son, Harsh Gupta has secured All India Rank 1 in chemical engineering. Results of Graduate Aptitude Test in engineering i.e GATE 2017 are just out and Harsh Gupta is clearly a topper by securing 999 out of 1000.

A BTech final year student at Malviya National Institute of Technology (MNIT) at Jaipur, Harsh has not yet decided his action plan after this amazing result of GATE examination, he spoke about in an interview with HT, about his future plan, “I will consult my seniors and teachers to decide whether I go for for a Master’s at IIT or try for a job in a public sector undertaking (PSU)”. He also further continued, “I may work at a PSU for few years before going abroad for Master’s”.

Harsh actually hails from engineering family only, his father, Santosh Kumar Gupta is an associate professor in Statistics department at university of Rajastan in Jaipur, while his elder brother, who is graduate from Birla Institute of Technology (BIT), Mesra, Ranchi is currently working for IBM, Delhi office. Harsh’s father who is jubilant over his son’s success and said, “I am very happy for my son.”

Speaking more on the Harsh’s education, he did schooling from Jaipuria Vidyalaya, a CBSE school on Jawaharlal Nehru Marg and then further went to take join Malviya National Institute of Technology (MNIT) at Jaipur in 2013.

This Graduate Aptitude Test in Engineering i.e GATE 2017 was organised by IIT Roorkee, in afternoon and forenoon sessions on weekends, on February 4, February 5 and February 11 and February 12. Scores of this test can be downloaded till May 5 and these scores are considered valid till next three years. GATE is an examination which basically tests knowledge of candidate in his undergraduate subjects of engineering and it’s score can be used by both public and private sector.

HCL to hire kids directly from school: Does this mark a divorce of education, employment in India?

http://www.firstpost.com/business/hcl-to-hire-kids-directly-from-school-does-this-mark-a-divorce-of-education-employment-in-india-3353974.html

Technology giant HCL announced a transformative scheme recently under which high school graduates with 85 percent marks will find a technical job in the company, with a part-time facility to get a college degree. The scheme, launched on

24 March, is an interesting development that has the potential to implement a disassociation of education from employment.

Education has largely been associated with quality of living for more than a century. Even today, people pursue their interest in music or Sanskrit to enrich their lives rather than for gainful employment. However, it is a truism that technical education-courses, like Bachelors in Engineering or Bachelors in Technology, are inherently tied to employment and job prospects.

Michael Spence, a Nobel laureate economist, explained this association: Even if the value of education is nothing – a cynical view, but this idea helps to illustrate the underlying point quite well – high calibre people will educate themselves in order to separate themselves, to their prospective employers, from their low-calibre counterparts, who are incapable of pursuing this education. The employers will offer the job to the educated person, understanding that the educated are the high-calibre people.

So do professional courses, like a B Tech in an IIT, function as Spencean signalling beacons? It is not a unreasonable proposition if we consider the fact that a coaching-school teacher in Kota, who trains students for the prestigious IIT Joint Entrance Examination, often earns a far fatter salary than an IIT professor.

The entry to IIT is more valuable to all involved in the game than the actual education in the IIT, as the entry offers the signalling of high-calibre-ship. For the same reason, an IITian trained in mechanical or civil engineering for four years, taking up an information technology sector job at the entry level is a common occurrence.

Once it becomes clear to students that the employers are largely interested in their IIT brand, their commitment to engineering education can only diminish. Our engineering education has Spencean signalling written all over it.

Now, with the proliferation of engineering colleges of all hues, engineering has become the choice for a common student compared to its role as an extra-ordinary choice a generation ago. In this era of ubiquitous coaching institutes, questions often arise if the entrance examinations are good enough to identify raw talent devoid of coaching. The signalling mechanism is faltering.

What happens if the signalling is easy and cannot distinguish between the high-calibre and low-calibre individuals? The Spencean model conceives of a pooling equilibrium in which everybody undertakes much education that hardly helps most people.

A report in The Economist finds that though India produces twice as many engineers as the United States, less than five percent of the engineers are fit to work in a quality product firm. The unnecessary education drains the society's resources without proportionate gains.

The road for social welfare lies in prospective employers' ignoring of this signal. Fortunately, HCL took the courageous first step to delink engineering education from job opportunity. A success of this step will mean more companies walking the HCL way and gradually a graduation degree in engineering being a certificate of education rather than being a job insurance.

The other part of this story is about the increasing deterioration of our higher education standards. For our degrees to be worthy of pursuit, they must be of value and associated with performance in the related sectors.

Successive governments in India have almost exclusively focused on establishment of new educational institutes rather than improving the quality of the education. If our degrees needs to shine, they should be offered after demanding accomplishment.

Generally, the Indian education system is too theoretical. An engineer after his graduation is more often than not found only to have a theoretical understanding than a real competence to tackle the practical scenario. Our curriculum requires a revolutionary shift to make technical education tied to industry and innovativeness.

The thrust of the argument will follow the same pattern in case of management institutes and degree programs. In sum, the immediate need is to raise the quality of higher education; producing an army of uneducated degree-holders is not a good idea.