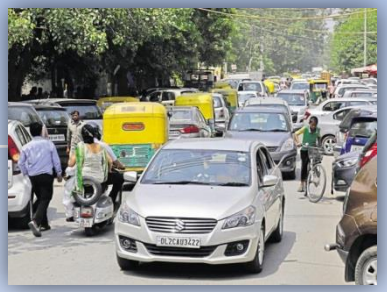
CSIR In Media
A Daily News Bulletin

27th June, 2016, Page: 1

Poor upkeep, encroachment cause jams on internal Delhi roads, says study



CSIR-CRRI

Poor maintenance, roadside parking and encroachment often lead to congestion on internal roads, found a study conducted by the Central Road Research Institute (CRRI).

The study has revealed that at times the internal roads are as clogged as several arterial roads in the city. The cause is not the rising number of vehicles, but the apathy of civic authorities.

Over 60 internal roads were observed for 15 days in April to find out the reasons behind the traffic jams. South Extension part-I, Malviya Nagar, CR Park, Bhogal (Jangpura Extension), and Lajpat Nagar part-IV topped the list of the most congested colonies.

"At Maharishi Marg (the market area) in Malviya Nagar, roadside parking is a major problem. The roads are dug up and illegal speed breakers slow down vehicles that can lead to jams," the study read. In several colonies, around Greater Kailash parts-I and II and CR Park, mindless construction of speed breakers caused many jams.

It was found that over 80% of these speed bumps are not built as per the CRRI guidelines.
"The location and the dimension of the speed breakers serve different purposes. You cannot randomly construct speed breakers on colony roads without following the basic rules. You need to paint these with reflective paint and install signs to warn drivers of the speed breakers ahead," said Dr S Velmurugan, senior principal scientist, traffic engineering and safety division at CSIR-CRRI.

In the National Capital Territory (NCT) of Delhi, out of the 33,000km road network, only 1,400km comprise arterial and sub-arterial roads. This carries about 70% of the total traffic load of the city.
Moreover, snarls are common around unauthorised colonies. There are many encroachments on the roads. The roads are narrow and do not have space to accommodate vehicles.

Velmurugan said traffic congestion on colony roads could be addressed by effective enforcement of land-use control policy. There is also an urgent need to conceive traffic system management (TSM) such as one-way streets and parking prohibitions wherever possible, he said.

"Most agencies focus on main roads, neglecting local streets. For example, in South Extension, which is among the posh colonies of the city, roads have been dug up by agencies. The problem here is acute because the Ring Road is always congested, forcing commuters to take internal roads," said Dr D Prasad, professor (transportation policy) at IIT Delhi.
A study released by Centre for Science and Environment (CSE) in August last year had also highlighted the problem of clogged colony roads.

The study showed that traffic on colony roads in some south Delhi localities was three times their capacity. The study was conducted in three localities -- Alaknanda, CR Park and Greater Kailash. It highlighted the unprecedented congestion and lack of official planning in Delhi's colonies.

http://www.hindustantimes.com/delhi/poor-upkeep-encroachment-cause-jams-on-internal-delhi-roads-says-study/story-UlwR5FYUrmW2EUjtqJQtcK.html

Soumya Pillai | New Delhi| June 25, 2016

NHAI to use solid waste from Ghazipur in Delhi-Meerut Expressway

CSIR-CRRI

The National Highways Authority of India (NHAI) plans to utilise the solid waste from Ghazipur in construction of Delhi-Meerut Expressway to curb pollution.

NHAI is already utilising fly-ash up to 30 per cent of earth filling in the Eastern Peripheral Expressway and using other slag materials elsewhere.

"NHAI plans utilisation of this (Ghazipur Landfill site) Solid Waste Material for its highway construction programme on NH-24, Meerut Expressway," it said in a statement.

This will be in line with Prime Minister Narendra Modi's directions for use of waste in a productive way.

To allay the doubts of concessionaires and to encourage them to utilise this waste, NHAI has offered to indemnify the Concessionaires for the stretches where this waste material shall be tried, the statement said.

Also, NHAI will write to Ministry of Environment and Forest to allow usage of solid waste material in lieu of fly-ash wherever feasible, it said.

This initiative of NHAI will promote the construction of green highways in the country as it amounts to substantial replacement of natural earth, mining of which causes environmental problems.

The Authority had entrusted the assignment of technically verifying whether Solid Waste Material generated from Municipal/city waste can be utilised for highway construction to Council of Scientific and Industrial Research (CSIR)—Central Road Research Institute (CRRI)

http://www.thehindu.com/news/national/other-states/nhai-to-use-solid-waste-from-ghazipur-in-delhimeerut-expressway/article8770832.ece

PTI | June 25, 2016

CRRI for using Ghazipur site waste to widen NH-24

CSIR-CRRI

In a move that could see usage of solid waste from Ghazipur dumping site for embankment construction of NH-24 (Meerut Expressway), the Central Road Research Institute (CRRI) has found that 65-75% of segregated waste can be utilised for such work.

Use of solid waste is expected to reduce the huge mounds of waste in the dumping yard and will come as a relief considering that the capital city is struggling to find space to dump 7,000 tonnes of daily municipal waste.
The CRRI report has recommended construction of an experimental test track and monitoring of it for two years before large-scale field application.

However, in an official release, NHAI said it plans utilisation of the material for widening of NH-24 and construction of greenfield Meerut Expressway. "To allay the doubts of concessionaires and to encourage them to utilise this waste, NHAI has offered to indemnify the concessionaires for the stretches where this waste material shall be tried," it said. The authority will also write to environment ministry to allow usage of solid waste material in lieu of fly-ash wherever feasible. TOI on December 29 had first reported how test reports submitted by Delhi municipal authorities to road ministry showed treated waste is fit for building embankments and base of roads.

CRRI conducted the study after collecting 200 tonnes of municipal solid waste from three different locations from Ghazipur landfill site and these were five, 10 and 15 years old.

http://timesofindia.indiatimes.com/city/delhi/CRRI-for-using-Ghazipur-site-waste-to-widen-NH-24/articleshow/52908139.cms

Dipak K Dash | TNN | Jun 24, 2016

NHAI to use solid waste from Ghazipur for Delhi-Meerut E-way

CSIR-CRRI

The National Highways Authority of India (NHAI) plans to utilise the solid waste from Ghazipur in construction of Delhi-Meerut Expressway to curb pollution. NHAI is already utilising fly-ash up to 30 per cent of earth filling in the Eastern Peripheral Expressway and using other slag materials elsewhere.

"NHAI plans utilisation of this (Ghazipur Landfill site) Solid Waste Material for its highway construction programme on NH-24, Meerut Expressway," it said in a statement.

This will be in line with Prime Minister Narendra Modi's directions for use of waste in a productive way.

To allay the doubts of concessionaires and to encourage them to utilise this waste, NHAI has offered to indemnify the Concessionaires for the stretches where this waste material shall be tried, the statement said.
Also, NHAI will write to Ministry of Environment and Forest to allow usage of solid waste material in lieu of fly-ash wherever feasible, it said.

This initiative of NHAI will promote the construction of green highways in the country as it amounts to substantial replacement of natural earth, mining of which causes environmental problems.

The Authority had entrusted the assignment of technically verifying whether Solid Waste Material generated from Municipal/city waste can be utilised for highway construction to Council of Scientific and Industrial Research (CSIR)-Central Road Research Institute (CRRI).

"CSIR and CRRI conducted a study by collecting 70 tonnes of municipal solid waste from different locations of 5/10/15 years old from Ghazipur Land fill site of Municipal Corporation of Delhi and have recommended the municipal solid waste contains about 65 to 70 per cent of soil components which can be used in embankment construction after segregation from the municipal solid waste," the statement said.
It said the methodology suggested for use is by drying the collected municipal solid waste and passing through different sieves.

"The percentage passing from the 16 mm sieve contains 44 to 48 per cent of municipal solid waste which can be directly used in embankment construction. For utilising the municipal solid waste passing through 32 mm sieve, the segregation of plastic material and PVC etc, will have to be blown by using high capacity blowers at the segregation plant," the statement said.

Director CRRI had earlier presented the report and findings to chairman NHAI Raghav Chandra.
The Municipal Corporation of Delhi (East) had earlier approached NHAI to make use of waste at Ghazipur Landfill site, whereupon Chairman NHAI had commissioned analytical study through CRRI.

http://timesofindia.indiatimes.com/home/environment/NHAI-to-use-solid-waste-from-Ghazipur-for-Delhi-Meerut-E-way/articleshow/52903328.cms

PTI | Jun 24, 2016

IFFCO to market seaweed extract made by CSMCRI

CSIR-CSMCRI

The liquid sap extracted from kappaphycus increased yield of several crops.

India's leading fertilizer manufacturer, Indian Farmers Fertilizer Co-operative Ltd (IFFCO), will market seaweed bio-stimulant developed by the Bhavnagar-based Central Salt and Marine Chemical Research Institute (CSMCRI), a national laboratory working under the aegis of Council of Scientific and Industrial Research (CSIR).

The bio-stimulant extracted from kappaphycus seaweed has proved increased yield of several crops in 20 states while decreasing the use of chemical fertilizers.

"CSMCRI developed the technology to produce both bio-stimulants and hydrocolloids from liquid extract from kappaphycus seaweed which has now been globally patented. A multi-institutional multi-crop project was carried out by CSIR-CSMCRI in collaboration with 43 State Agricultural Universities and Indian Council of Agricultural Research (ICAR) institutes across 20 states in India. The trials showed improvement in agricultural crop yield with use of the seaweed bio-stimulant," said Arup Ghosh, senior scientist, Plant Omics division, CSMCRI, who led the project.

"The liquid sap produced from the seaweed has proven to be a very potent bio-stimulant capable of enhancing the productivity of agricultural crops," Ghosh added.
The 100% natural seaweed extract will be marketed by Iffco under the brand name 'Sagarika.'

"Field trials on nine agricultural crops showed an increase in the yield from 11% to 36% over the recommended package of practices. It is being commercially marketed in India and is approved as per US organic standards," he said.
Latest Comment

The bio-stimulant will help farmers to reduce dependence on chemical fertilisers.

The increase in yield of fodder was 13.8%, rice (20.3), maize (24), blackgram (36.6), green gram (28.4), soyabean (34.5), sesame (31.8) potato (20.6) and in sugarcane (11.2). Besides natural bio-stimulant, seaweed cultivation provides livelihood to local people along the coast of Gujarat and Tamil Nadu. The use of it reduces requirement of the use of chemical fertilizers to some extent," the scientist said.

Recently, the seaweed cultivation is also being taken up by Gujarat Livelihood Promotion Council, a government of Gujarat undertaking at Simar, Kalapan and Miyani.

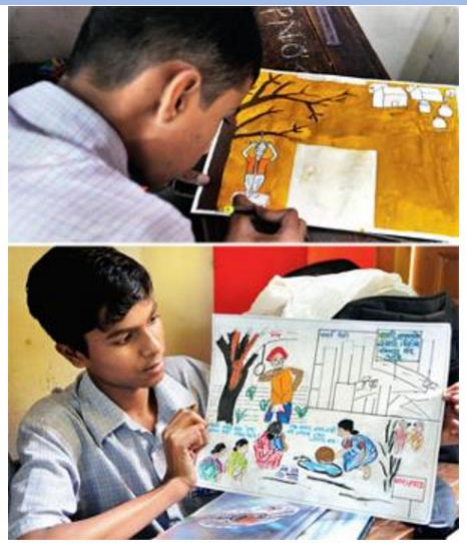
http://timesofindia.indiatimes.com/city/rajkot/IFFCO-to-market-seaweed-extract-made-by-CSMCRI/articleshow/52894305.cms

Vijaysinh Parmar | TNN | Jun 24, 2016

SEEING SCIENCE THROUGH BRUSHSTROKES

CSIR-NCL

Group of scientists from CSIR-NCL, IISER organise drawing competition for PMC-run schools in order to bring out excitment and wonder of the subject



The Students had a host of topics to draw from, one of them being 'The world without water'. PICS: MAHENDRA KOLHE

It was a rare academic treat for students of Pune Municipal Corporation (PMC)-run schools as a group of scientists organised a competition combining science and art for them on Saturday. As many as 102 students from eight different schools took part in the competition by The Exciting Science Group (ESG) — formed by experts from the Council of Scientific and Industrial Research-National Chemical Laboratory (CSIR-NCL) and Indian Institutes of Science Education and Research (IISER).

The topics given for drawing were 'A day at the science lab', 'The world without water', 'If I were a micro-organism' and 'My dream car'. "This competition aims to motivate students so that they understand the correlation between science and art, that will also boost their imagination," said NCL scientist Guruswami Kumarswami. ESG organises regular programmes to bring out the joy and excitement of scientific research among school students.

Artist Ravi Paranjape, who was the chief guest at the event, said, "Science and art are fields which could only be developed through an innovative approach. Students must start questioning everything and should think beyond their curriculum. They have to believe in their perception. This will help us with innovations in science as well as nation-building activities."

Gayatri Kshirsagar, an ESG volunteer impressed upon the uniqueness of the initiative, saying, "There are many drawing competitions organised in the city, but no one takes science as the theme." IISER scientist Sukirt Dey added, "ESG aims to create an interface between school students and practicing scientists. The primary objective of this group is to have scientists share the excitement of science with school children, and not to 'teach' science."

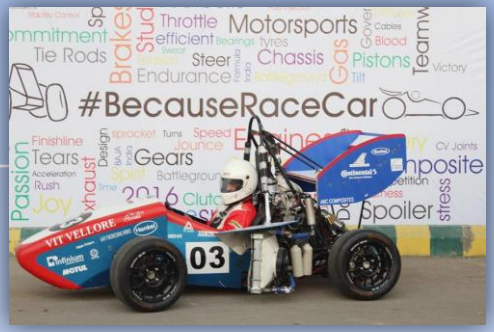
Students lapped up the theme with enthusiasm. "It was a challenge for the imagination. Though I learn science every day, it was difficult to visualise that and draw. But, when I completed my drawing, there was a sense of fulfilment," shared Prachi Balaji Balla from K C Thakare Vidya Niketan School.

Laxman Prajapati from Ahilyadevi Holkar School, who had chosen the topic, 'The world without water', said, "When I started to think on my picture, I recollected the recent issue of farmer suicides owing to the severe drought in the state. But, it is not just the humans who would be in trouble. The entire ecosystem would be lost without water. So, I incorporated both the things in my drawing."

http://www.punemirror.in/pune/civic/Seeing-science-through-brushstrokes/articleshow/52919534.cms

Darshana Daga, Pune Mirror | Jun 26, 2016

Vellore Engineering Students Ready to Test Their Formula Car in Germany



CSIR-NAL

Group of scientists from CSIR-NCL, IISER organise drawing competition for PMC-run schools in order to bring out excitment and wonder of the subject

With the dream of seeing their car driven by Formula One champion Lewis Hamilton someday, 40 engineering students from the Vellore Institute of Technology (VIT) in Tamil Nadu have put their head together to design a Formula car.
Pravega Racing, as the team of these engineers is called, participated in the 'Formula Car India' contest where teams from engineering colleges in India compete to build a Formula Car.

The team from VIT tops the ratings in the competition and is all set to take its car in the Formula Car Germany contest.

The team has designed, manufactured, tested and raced a single-seater, open-wheel, open-cockpit formula style race car.

Pravega Racing reached the competition in Germany with a worldwide third rank in the qualifying quiz and are at the top among the five teams from India that will participate in Formula Student Germany.

Formula Student Germany is the biggest engineering competition that takes place every year at the F1 track in Hockenheimring. Automotive giants such as AUDI, BMW, Porsche, Bosch and SKF among others are associated with the event and provide valuable insights into the working of the automotive industry.

Tell us something about Pravega racing.

Pravega Racing is a team of motivated engineers who apply engineering fundamentals into practical applications in the context of building a Formula style race-car. We participate in international competitions organized by SAE (Society of Automotive Engineers) such as Formula Student Germany, which is the biggest engineering showdown in the world. We are currently the top-ranked team from India in the world rankings.

For the benefits of our readers, can you explain what Formula Student precisely means. Is it a race or something else?

Formula Student is not a race, it is an engineering competition. The competition is divided into two segments:
Statics (car not driven): Design Event, Cost and Manufacturing Event and Business Presentation.
Dynamics (car driven): Acceleration, AutoX (read as AutoCross), Skidpad and Endurance.
Formula Student/Formula SAE competitions have a total of 1000 points, of which the majority of points are of dynamic events. It may look like a racing competition and yes we do race our cars but the primary motive of the competition is to focus on better engineering practices so as to be of better service to the Automotive industry in the future.

Being engineering students, you had options to put your mind on many other projects. How did you choose to build a Formula car?
Engineering is all about practical application of knowledge, and building a Formula-style race-car incorporates multiple aspects of engineering and makes the students ready to work in the industry. This project also inculcates management skills in the members that aids in developing their personality.

It must involve huge costs. How do you manage that?
We work under budget constraints as it is a student project; and as we are only partially funded by the University, we have to rope in sponsors from the industry. The entire season budget is around Rs. 35 lakh, which includes building the car, logistics to Germany and other aspects of the competition.

We have some sponsors who provide us with monetary support, but most of our sponsors provide us with product support. We have support from the automotive industry; and major corporations such as BMW, SKF, and Hitachi among others have put their faith in us. We also receive product support from industry leaders such as Motul, Henkel and LiquiMoly. Continental Tyres have been our sponsors for a very long time now. Of course, there are many others without whom our team would not have been successful.

Is this the first Formula car build by the team? How much time does it take to build a student-level Formula car?

We make a new car every season and our current race-car PRV-15 took us five months to build, which includes designing, manufacturing and assembly of the car.

What about testing?

A race-car that is not tested is not reliable in a competition environment, so we emphasize a lot on car testing. We test our car for two months before the competition to make sure it is race-ready and all the parts are integrated perfectly to gain peak performance at the event.

We heard that you guys are sending it to Germany.

Formula Student Germany is the biggest engineering competition. It is a great learning experience for us to interact with other teams and knowledge-sharing is an integral part of Formula Student.

You want your car to be driven by Formula One champion Lewis Hamilton someday. Did you approach Mercedes AMG for this?

Yes, why not! An F1 champ like Hamilton will provide us with invaluable inputs on our car. His expertise, especially in driver feedback, will help us make our car more driver-friendly. We did approach Petronas for sponsorship and technical support almost a year back and they seemed very interested and intrigued. Unfortunately, due to some policy issues at the Malaysian HQ, we could not partner with them.

What will be the next step after competing in Germany?
We have made numerous technical changes in our car and we would like to see how they work out in Germany. We are confident of achieving a great result in Germany. Our aim is to constantly progress and become one of the best teams in the world. Currently the Formula Student world is dominated by teams from Germany and USA, but we aim to reach the top and make India's presence felt.

Since your car is now race-ready, have you already started brainstorming on the future development?
We are currently doing research on a number of technical developments in our race-car and we are in the process of testing the feasibility and performance. There are major developments in the aerodynamics and composites section.
We are the first team from India to have employed a fully functional Aerodynamic package. Organisations such as National Aerospace Laboratories (NAL) are also guiding us in the process. Our next car will be faster, lighter and stronger than our current car.

http://www.news18.com/news/formula-one/vellore-engineering-students-ready-to-test-their-formula-car-in-germany-1261808.html

Amit Kumar | Jun 25, 2016