



# CSIR IN MEDIA

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CSIR

## CSIR Technofest bags award at 36<sup>th</sup> IITF for excellence in display

The pavilion of the Council of Scientific and Industrial Research (CSIR) was adjudged first (Gold Medal) for excellence in display in the category, 'Ministries and Departments at the 36<sup>th</sup> India International Trade Fair. The Gold medal was presented by the India Trade Promotion Organisation Chairman, L.C. Mittal. Dr. Girish Sahni, Director General, CSIR said "Getting recognised for what CSIR is doing is indeed exciting. Everything happened because of the hard work put in by



the entire CSIR family. The outcome of the last 75 year journey of the organisation was on display

and people liked it. We tried to portray our technologies in an aesthetically appealing way."

Hindustan Times | Page 23 | Nov 30, 2016

CSIR

## ‘सीएसआईआर टैक्नोफेस्ट’ ट्रेडफेयर में गोल्ड मैडल से सम्मानित



प्रगति मैदान (शिवाकांत)। कार्डसिल ऑफ साइंटिफिक एंड इंडस्ट्रियल रिसर्च (सीएसआईआर) बेहतरीन प्रदर्शनी के लिए 36वें इंडिया इंटरनेशनल ट्रेड फेयर में प्रथम स्थान पर रहा। सीएसआईआर को यह गोल्ड मैडल 'मिनिस्ट्री एंड डिपार्टमेंट' कैटेगरी में सर्वश्रेष्ठ प्रदर्शन के लिए आईटीपीओ के चेयरमैन एल.सी. मिश्रा ने प्रदान किया। सीएसआईआर के डायरेक्टर जनरल डॉ. गिरीश सोनी ने कहा कि सीएसआईआर के कार्यों को इस तरह सम्मान मिलना बेहद रोमांचक है। उन्होंने कहा कि इस ट्रेडफेयर में सीएसआईआर ने अपने 75 वर्ष के सफर को प्रदर्शित किया और लोगों ने इसे बेहद सराहा। लोगों से मिले इस रिसर्चा और इस गोल्ड मैडल से हमें भविष्य में अपने अच्छे कार्य को और आगे बढ़ाने में मदद मिलेगी। सीएसआईआर के मिशन एवं विजन के बारे में बताते हुए श्री सोनी ने कहा कि 10 प्रोजेक्ट्स पर कार्य चल

रहा है जिनमें मिथोल मिन्ट उत्पादन, चमड़ा उद्योग को समर्थ बनाना और किसानों के लिए अधिक पैदावार वाली फसलों की किस्म सुधारना शामिल हैं जिससे उनकी आय में वृद्धि होगी।

सीएसआईआर के प्लेटीनम जुबली टेक्नोफेस्ट के कोऑर्डिनेटर डॉ. दलजीत सिंह बेदी ने अवार्ड मिलने पर संतुष्टि जाहिर करते हुए कहा कि यह अवार्ड सीएसआईआर के टीमवर्क को मिली सर्वश्रेष्ठ मान्यता है, जो उसने गत 7 दशकों में किए हैं।

टेक्नोफेस्ट की शुरुआत 14 नवम्बर को हुई थी और प्रत्येक एक अलग थीम को समर्पित था जो सीएसआईआर लैब्स द्वारा विकसित विभिन्न तकनीकों, पहलों और उत्पादों पर आधारित था। सीएसआईआर के इस टेक्नोफेस्ट को चहूँ ओर से भरपूर सराहना मिली और रविवार को यहाँ इतनी भारी संख्या में लोग आए कि पांव रखने को जगह नहीं थी। विजित करने वालों का कहना



था—सर्वाधिक प्रतिष्ठित इंस्टीट्यूट द्वारा किया गया यह एक विशेष प्रयास है। यह एक सुनहरा अवसर था कि हम अपने देश एवं सीएसआईआर के प्रतिष्ठित वैज्ञानिकों द्वारा की गई खोजों से परिचित हो सकें। हम आशा करते हैं कि यह अवसर आगे प्रत्येक वर्ष हमें प्राप्त होगा। मेले के दौरान सीएसआईआर की नवीनतम तकनीकों के कॉमर्शियल लॉन्च

के लिए 45 एमओयू पर हस्ताक्षर किए गए। सीएसआईआर प्रोफेशनल्स एवं उसके औद्योगिक सहयोगियों ने 150 से अधिक प्रस्तुतियाँ दीं। बहुत से पैनल डिस्कशन भी आयोजित किए गए। सीएसआईआर अपने मोटो 'टचिंग लाइव्स' के साथ अपने तकनीकी सहयोगियों और तकनीकी उपभोक्ताओं पर गहरी छाप छोड़ रहा है।

### भारत से बिना शर्त बातचीत करने के लिए तैयार पाक : अब्दुल बासित

इस्लामाबाद। कश्मीर में नियंत्रण रेखा के पास हालात 'खराब होने' के कारण भारत- पाक के बीच का तनाव बढ़ता जा रहा है। इसी बीच पाक उच्चायुक्त अब्दुल बासित का बयान सामने आया है कि पाकिस्तान भारत से बिना शर्त बातचीत करने के लिए तैयार है। बता दें कि पाकिस्तानी हाई कमिश्नर अब्दुल बासित अगले हफ्ते हार्ट ऑफ एशिया कॉन्फ्रेंस में हिस्सा लेने भारत आ रहे हैं। गौरतलब है कि उरी में भारतीय सैन्य ठिकाने पर 18 सितंबर को हुए हमले और इसके जवाब में 10 दिन बाद सेना द्वारा पाकिस्तान के कब्जे वाले कश्मीर में आतंकवादी ठिकानों पर लक्षित हमले के बाद से भारत एवं पाकिस्तान के बीच का तनाव बढ़ा है।

Delhi News 7 | Nov 29, 2016

Also Published in: Hindustan Times | Delhi | Page 23

**CSIR**



### **IITF (CSIR)**

Council of Scientific and Industrial Research took ahead its theme based representation on 5th day of CSIR Platinum Jubilee Technofest at 36th IITF in hall no. 12 A at Pragati Maidan. The day was dedicated to 'Chemicals and Petrochemicals'.



## The air we breathe: Mumbai's toxic road junctions can stop traffic, your heart

### CSIR-NEERI

You could be inhaling fine particulate matter up to 30 times more than the safe limit at a traffic junction in the city.

A study led by the National Environmental Engineering Research Institute (NEERI) at 33 traffic junctions across the city found the average concentration of PM10 (particulate matter of less than 10 microns in diameter) to be maximum at Dindoshi at 2,709 micrograms per cubic metre (ug/m<sup>3</sup>) — that is 27 times the permissible limit of 100ug/m<sup>3</sup>.

Exposure to high levels of PM10 — they are solid and liquid particles floating in the air — leads to respiratory and cardiovascular diseases and premature death.

This and other official statistics paint an alarming picture of the condition of the city's air.

HT talks to experts to clear the air on how bad the situation is on the ground and what can be done to control it so that Mumbai can finally catch a breath of fresh air.

The study, co-authored by the Indian Institute of Technology–Bombay and the Maharashtra Pollution Control Board, also revealed that heavy traffic during peak hours on weekdays saw average PM10 levels of 2,272 ug/m<sup>3</sup> at Borivli station (East) followed by Mankhurd link road at 1,984ug/m<sup>3</sup>.

Apart from exposing the public to toxic air, the pollution was putting patients at two major government hospitals — termed sensitive zones — at a higher risk. At the Sir JJ Hospital traffic junction at Byculla, PM10 levels were almost 10 times the safe limit at 919ug/m<sup>3</sup>, and it was seven times (685ug/m<sup>3</sup>) the safe limit at Sion hospital.

Researchers said there are multiple sources leading to high PM10 emissions at traffic junctions apart from vehicles.

“The signal system of the junction needs to be improved so that pollution from vehicles can be minimised,” said Rakesh Kumar, director, NEERI. “When vehicles stop, they keep idling, and during that interim period, values of pollutants go exceptionally high.”

Wind conditions, or the lack of them, also create local hotspots of air pollution.

Other PM10 sources include road construction and commercial and residential complexes, improper parking management, slowing of vehicles to find parking space, roadside purchases and roadside eateries.

Even the lowest average PM10 level of 596ug/m<sup>3</sup> recorded at Siddhivinayak temple, Prabhadevi, breached the permissible limit by almost six times. Including the two hospitals, the study has pointed out five traffic junctions — Sion flyover junction, Andheri-Ghatkopar link road, Bandra (West), Brihanmumbai Municipal Corporation (BMC) Head office and Bhandup police station — that need interventions such as an outdoor air purifying system that will dilute the pollutants.

Snehal Fernandes | Nov 28, 2016

Source: [www.hindustantimes.com/mumbai-news/the-air-we-breathe-mumbai-s-toxic-road-junctions-can-stop-traffic-your-heart/story-EEDHRFO61ULpaOT1evKapM.html](http://www.hindustantimes.com/mumbai-news/the-air-we-breathe-mumbai-s-toxic-road-junctions-can-stop-traffic-your-heart/story-EEDHRFO61ULpaOT1evKapM.html)

Also Published in: [timesofindia.indiatimes.com/city/mumbai/3-most-polluted-traffic-junctions-may-be-in-for-a-breath-of-fresh-air/articleshow/55674693.cms](http://timesofindia.indiatimes.com/city/mumbai/3-most-polluted-traffic-junctions-may-be-in-for-a-breath-of-fresh-air/articleshow/55674693.cms)

## **'Air purifiers and mist fountains are ill-conceived plans': Environmentalists and PWD calls AAP's proposal to control pollution 'unreliable'**

### **CSIR-NEERI**

**PWD has put a question mark over the technological measures taken by AAP**

**AAP had proposed to install air purifiers and mist fountains at five choke points in Delhi**

**The only such model found was in China, which cannot be replicated in India because of climatic and social differences**

The AAP government's Public Works Department (PWD) has seemingly come to the conclusion that a plan to install outdoor purification units and mist fountains to combat the city's choking smog is just a lot of hot air.

After a detailed study, the PWD has termed the project 'unreliable', putting a question mark over the technological measures the Delhi government was proposing to curb air pollution.

The department was exploring the possibility of installing air purifiers at traffic intersections and mist fountains at five choke points, including Mukarba Chowk and Anand Vihar - the most-polluted area of the city.

According to a senior officer in Delhi government, a team of PWD engineers carried out a research, consulted experts and read literature but didn't find anything to establish significant positive results from such projects.

"After a detailed study the department has submitted its report and has found the proposal not-feasible. It is so far unreliable and un-trusted as it has not yielded any positive result anywhere in the world and looking at Delhi's demography and air quality condition, a long-term solution should be made," said a senior official, adding that no final decision on the installation has been taken so far.

The AAP government announced in a press conference last month that it was planning to launch the project as a test run from January when the air quality in the Capital is the worst.

"Not that the idea has zero value, but so far no results have been seen in any of the active outdoor projects across the globe. Purifiers and mist fountains have given results only in indoor projects under strict monitoring," the officer said. More research and consultation is being carried out by departments to explore the options.

The only such model found was in China, which cannot be replicated in India because of climatic and social differences, say sources.

The officer explained that instead of immediate short-term measures, the government is acting on long-term steps such as controlling burning of waste, high-polluting vehicles, construction dust and industrial pollution.

However, another officer in the Delhi Pollution Control Committee (DPCC) told Mail Today that after the city government's announcement, a few air purifier manufacturing companies had approached them.

But they were turned down after the department asked them to sign a contract saying the payment would be made only when the project starts giving desired results.

The move by the Delhi government received a mixed response from environmentalists, but many were critical. "Installing air purifiers and mist fountains is an ill-conceived plan and not feasible in a city like Delhi," said green activist Vimlendu Jha.

"The project may give some results indoor, but not when installed on the streets.

The real concern is if the plan made by government to fight pollution is not working, what is the government doing?"

Jha pointed out that the city administration imposed a ban on construction activity because of the dust created, but soon lifted it.

"It's a sorry state of affairs in Delhi as the air-quality index is still severe," he said, suggesting that the government should look at long-term solutions.

The AAP government has collaborated with the National Environmental Engineering Research Institute (NEERI) and IIT (Bombay) to set up the entire system within 45 days.

However, the government said while announcing the step that the new pilot project of air treatment system has the potential to reduce carbon monoxide and particulate emission by 40%- 60% in a 20-30 m radius during peak hours of traffic.

In January 2016, the Delhi government observed the odd-even car rationing scheme for 15 days, which managed to control road congestion but had very little impact on pollution.

The scheme was again repeated in April, but received a lukewarm response. A senior officer told Mail Today that a third spell of the odd-even scheme is not on the agenda.

The latest experiment by the Delhi government comes after the National Green Tribunal (NGT) directed it to convene a meeting of concerned authorities to come up with a solution to tackle the worsening air quality.

The order came after the Central Pollution Control Board (CPCB) told NGT there was no improvement in the Capital's air quality during odd-even scheme.

SHASHANK SHEKHAR | Nov 27, 2016

Source: [www.dailymail.co.uk/indiahome/indianews/article-3974552/Air-purifiers-mist-fountains-ill-conceived-plans-Environmentalists-PWD-calls-AAP-s-proposal-control-pollution-unreliable.html](http://www.dailymail.co.uk/indiahome/indianews/article-3974552/Air-purifiers-mist-fountains-ill-conceived-plans-Environmentalists-PWD-calls-AAP-s-proposal-control-pollution-unreliable.html)



## Bad roads a pain for the spine

### CSIR-NAL

Do you complain of frequent backaches after returning from work? If yes, you are not alone, as doctors confirm an alarming rise in chronic spinal injuries among motorists, bringing renewed focus on the pathetic condition of roads in the city. Orthopedic and spine surgeons TOI spoke to said bad roads were a growing cause of back pain and slip disc, particularly among office-goers who had to travel long distances daily, either in car or via public transport.

It's the spine that holds the head and torso upright and allows flexibility and mobility to the body. Dr Rajeev Sharma, senior consultant, orthopaedics, and joint replacement surgeon at Apollo Hospital, said: "Back problem is epidemic among office-goers, particularly those travelling long distances daily and doing little exercise. Bad roads certainly have a role to play."

He added that patients were prescribed painkillers and postural exercises to treat the condition.

Dr H S Chhabra, director of Indian Spinal Injuries Centre, said such cases would only go up if urgent action wasn't taken to remedy the conditions of roads in the capital, riddled as they are with potholes.

Scientists from the National Aerospace Laboratories (NAL) in Bengaluru recently took up a unique project to assess the damage to spine while travelling on road. They seated a dummy weighing 65 kg -the weight of an average Indian male - on a car and an autorickshaw to measure seat acceleration.

Dr Satish Chandra, chief scientist and head of the structural technologies division at NAL, said a car driven continuously at just 25 kmph over 40-50 bumps or around 200 potholes would be enough to cause a spinal injury.

“On the other hand, even 5-6 potholes or bumps were sufficient to cause injuries in an auto-rickshaw at the same speed. The risk dramatically increased at higher speeds and the number of bumps or potholes required to cause an injury were much smaller,” he said.

Dr Chandra said potholes or bumps caused the body to accelerate while driving or sitting in a moving vehicle.”The risk of injury increases with the rate of acceleration. We found when the car was driven at around 25 kmph on an excellent road, the maximum acceleration the dummy encountered was around 0.2g, whereas on a fairly good road (with around 12 potholes and bumps in a 3 km stretch), it was about 1g. On a very bad road, with 24 potholes in a 3 km stretch, the maximum acceleration was over 1.5g,” he said. ‘G’ means gravitational force.

In Delhi, people tend to drive faster even on potholed roads and so the risk of spine injury increases manifold. The worst-affected part of the body is the neck, apart from the spine. “In developed countries, the law allows for suing civic bodies for such apathy . But in India, it takes the death of 45-year-old for people to demand action,” said an orthopedic surgeon at Safdarjung Hospital.

Nov 26, 2016

Source: [www.kashmirmonitor.in/Details/113067/bad-roads-a-pain-for-the-spine](http://www.kashmirmonitor.in/Details/113067/bad-roads-a-pain-for-the-spine)

## **New model to track quakes in Andamans**

### **CSIR-NGRI**

Researchers at the city-based National Geophysical Research Institute (NGRI) have developed a new scientific model that will help in the better location of earthquakes in the Andaman Island.

The model will also give the much-needed scientific insight into the distribution of earthquakes in the Andaman, and thus enable the administration to save life and property through improved seismic hazard preparation plans. Researchers have also decoded the formation of tectonic plates that contribute to the shaking of the earth. Andaman falls under a high seismic zone and faces the threat of tsunami. However, very little information is available from the Andaman region with regard to seismicity. "We have conducted the study under a pilot project funded by Department of Science and Technology (DST). The velocity models derived from our research can be used to locate earthquakes better. We can also infer better on the distribution of earthquakes. This will be helpful for seismic hazard studies in the Andaman," said Dr Sandeep Gupta, senior scientist. He said earthquake distribution provides in-situ information regarding tectonic processes at depth that are difficult to predict otherwise.

The nature of quakes and trend of their occurrence in a particular region provides information about its vulnerability or otherwise. "To study the seismic hazard of a region, it is necessary to understand the nature of the earthquake distribution and develop a realistic model. Every region has its own specific earth structure and thus specific seismic velocity variations with depth," Dr Sandeep said. Prior to this study, the quake occurrence and distribution studies in the Andaman relied mainly on global standard velocity models and were prone to possible errors, he added. Andaman, notwithstanding a large number of earthquakes occurring in the Indian Ocean, is a lesser studied island. NGRI study will be useful in finding reliable quake locations.

The study is also significant in the context of Indian sub-continent, particularly the Himalayan region. "Andaman lies on the east of the subduction zone that extends from collisional Himalaya on the north to the subduction-related Indonesian arc on the south. Long ago, this subduction zone was in line with the present day Himalaya collision arc. About 40 million to 50 million years ago, the collision of nearly north moving Indian plate with the Eurasian plate gave rise to the Himalaya," Dr Sandeep said.

Nov 29, 2016

Source: [timesofindia.indiatimes.com/city/hyderabad/New-model-to-track-quakes-in-Andamans/articleshow/55681206.cms](http://timesofindia.indiatimes.com/city/hyderabad/New-model-to-track-quakes-in-Andamans/articleshow/55681206.cms)

CSIR-NML

## बेल्डीह चर्च स्कूल में साइंस मॉडल मेकिंग कंपीटिशन



**बेल्डीह चर्च**

**जमशेदपुर.** बेल्डीह चर्च स्कूल स्कूल में स्कूली बच्चों के बीच साइंस मॉडल मेकिंग कंपीटिशन का आयोजन किया गया. जिसमें स्कूल के छठी से लेकर ग्यारहवीं तक के बच्चों ने फिजिक्स, केमेस्ट्री और बायोलॉजी से संबंधित मॉडल बनाये. 9 वीं से लेकर 11 वीं क्लास तक के बच्चों द्वारा तैयार किये गये कुल 80 मॉडलों को प्रदर्शनी में लगाया गया था. जिसमें बच्चों ने पवन चक्की से लेकर सोलर एनर्जी तैयार करने के तरीके बताये. इससे पूर्व प्रदर्शनी का उद्घाटन एनएमएल के चीफ साइंटिस्ट डॉ एनजी गोस्वामी ने किया. उनके साथ डॉ एनके झा भी थे. दोनों ने संयुक्त रूप से प्रदर्शनी का उद्घाटन किया और सभी मॉडलों का अवलोकन भी किया. इस दौरान उन्होंने बच्चों की प्रतिभा की सराहना की और कहा कि स्कूल स्तर पर इस तरह के कार्यक्रम बच्चों की सोच को विकसित करता है. इस मौके पर स्कूल की वाइस प्रिंसिपल एसपी साहू समेत काफी संख्या में शिक्षक-शिक्षिकाएं उपस्थित थे.

Prabhat Khabar | Nov 30, 2016



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