

CSIR in Media



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Clot buster medicine clears another hurdle

CSIR-IMTECH

19th March 2017

For a country where one person dies of a heart attack every 33 seconds, an affordable treatment that can prevent side-effects of internal bleeding caused by existing clot buster drugs, comes as a boon.

The Chandigarh-based Institute of Microbial Technology (IMTECH), a laboratory under Council for Scientific and Industrial Research (CSIR) has taken an important step in the development of such a clot buster medicine with the recent success of phase 2 clinical trials.

With the Drug Controller General of India's (DCGI) nod to conduct phase 2 clinical trials on second patient cohort (group) for clot specific streptokinase (CSSK), the evidence of its efficacy as a lifesaving drug for heart patients has been

strengthened. Though there will be more such studies on another group of patients, the results so far have been promising.

CSSK and all its four generations of drugs were discovered in IMTECH. Two of these drugs are already commercialized and account for 50% of market space of clot busters in the country. CSIR subsequently licensed it out to Nostrum pharmaceuticals, for further clinical development.

The present set of clot busting drugs cost between Rs 15,000 and Rs 40,000. The new drug is expected to cost around Rs 3,000. "Also, it is comparatively safer as it targets the clot to dissolve it and does not contribute to the factors which otherwise can cause serious internal bleeding.

Though it is not a replacement for angioplasty, it will certainly be a substitute for existing high cost thrombolytic drugs matching or exceeding their safety and efficacy at a much cheaper cost," says Dr Yatindra Prashar, director and CEO of Symmetrix Biotech, the company currently developing CSSK and is an Indian subsidiary of Nostrum pharmaceuticals.

The clot buster will be a life saver for patients, especially those belonging to poor sections who can't expensive treatment. "The latest DCGI approval is a major milestone in bringing this drug to Indian patients suffering from heart ailments," says Dr Girish Sahni, director general of CSIR in whose laboratory all the four generations of the clot busters have been discovered.

"There shall be four different doses given in different groups/cohorts of heart patients. The strength of the dose shall be increased until therapeutic dosage is reached which is safe for patients," says Dr Prashar.

According to Dr Anil Koul, director of IMTECH, progression of CSSK to next phase represents IMTECH's potential of translating its basic discovery research to medical products for patients suffering from various unmet medical conditions.

"Under the supervision of well-trained doctors, the clot buster medicine is given until the patient reaches a catheterization laboratory for stenting etc. The cost of the existing streptokinase is around Rs 15,000," says Dr Rajesh Vijayvergia, cardiologist at PGIMER.

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[Health.EconomicTimes](https://www.economicstimes.com)

CSIR-CIMFR

18th March 2017

कोयला से तेल बनाने की तैयारी

विनय झा • धनबाद

किसी कारणवश अगर विदेश से तेल आपूर्ति बंद हो जाए या दाम एकाएक आसमान छूने लगे तो क्या होगा? ऐसी ही चिंता के मद्देनजर भारत सरकार ऊर्जा सुरक्षा के लिए सामरिक व आर्थिक नजरिए से कोयला से तेल निकालने की योजना पर काम कर रही है। नीति आयोग के दिशानिर्देश पर कोयला मंत्रालय इस दिशा में कवायद कर रहा है। इस नायाब पहल के तहत करोड़ों रुपये की लागत से फिलहाल एक बड़ा कारखाना लगाने की योजना पर मंथन चल रहा है। निकट भविष्य में ही निर्णय संभावित है।

दक्षिण अफ्रीका व अमेरिका के बाद भारत दुनिया का तीसरा ऐसा देश होगा जहां इस तरह का वाणिज्यिक कारखाना होगा। केंद्र सरकार के निर्देश पर धनबाद स्थित केंद्रीय खनन व ईंधन अनुसंधान संस्थान (सिंफर) के वैज्ञानिकों ने कोयला से तेल बनाने की स्वदेशी तकनीक विकसित कर ली है। संस्थान के डिगवाडीह स्थित परिसर में पायलट प्रोजेक्ट में तेल बनना शुरू हो चुका है। कोयला मंत्रालय से जुड़ी 'स्टैंडिंग साइंटिफिक रिसर्च कमेटी' (एसएसआरसी) इस प्रोजेक्ट को लेकर कई बार चर्चा कर चुकी है। सूत्रों के अनुसार 15 मार्च को दिल्ली में कोयला सचिव सुशील कुमार की अध्यक्षता में हुई एसएसआरसी की बैठक में कोयला से तेल के लिए विकसित प्रौद्योगिकी की प्रमाणिकता पर मुहर लगाई गई। पायलट

जागरण विशेष



डॉ. प्रदीप कुमार सिंह • जागरण



धनबाद के डिगवाडीह में सिंफर के वैज्ञानिकों द्वारा विकसित कोयला से तेल निकालने का पायलट प्रोजेक्ट • जागरण

प्रोजेक्ट से जुड़े सिंफर के निदेशक डॉ. प्रदीप कुमार सिंह एवं वैज्ञानिक डॉ. सुदीप मैती के अनुसार कोयला से तेल बनाने की दो तरह की तकनीक है। मगर कोई देश इसका राज दूसरे को नहीं देता। पहला प्रत्यक्ष तरीका, जिसमें उच्च तापमान में हाइड्रोजन गैस की मौजूदगी में कोयला से सीधे तेल बनाया जाता है। यह कठिन है। चीन ने इस तरह कारखाना लगाया था, मगर इसके परिणाम संतोषजनक नहीं रहे। दूसरा अप्रत्यक्ष तरीका है, जिसमें कोयला से पहले गैस फिर तेल बनाया जाता है। सिंफर ने यही तकनीक विकसित की है। इसमें खास तरह के उत्प्रेरक (गोपनीय) का इस्तेमाल किया गया है। अभी दुनिया में सिर्फ दक्षिण अफ्रीका के ससोल कारखाना में रोजाना करीब 40 हजार बैरल कोयला तेल बनाया जा रहा है। वहां की कुल ऊर्जा खपत में इसकी हिस्सेदारी 40 फीसद

है। वहां दो टन कोयले से एक बैरल तेल निकलता है। सिंफर के पायलट प्रोजेक्ट में 3.5 टन कोयले से एक बैरल तेल बन रहा है। महत्वपूर्ण है कि ससोल में जहां उच्च गुणवत्ता वाले मंहगे कोयले का इस्तेमाल होता है, वहीं अपने यहां खराब व सस्ते कोयले का उपयोग हो रहा है। अपने देश में इस तरह के कोयले की बहुतायत के कारण यह नई तकनीक अपनाई जा रही है।

अभी तेल की लागत 85 डॉलर (करीब साढ़े पांच हजार रुपये) प्रति बैरल आ रही है। इसमें और सुधार का प्रयास चल रहा है। वाणिज्यिक उत्पादन से लागत में और कमी आएगी। डॉ. प्रदीप के मुताबिक सिंफर के वैज्ञानिकों ने कोयला से तेल की स्वदेशी तकनीक विकसित कर ली है। यदि सरकार कारखाना लगाने का निर्णय लेती है तो अब प्रौद्योगिकी के लिए दूसरे देशों का मुंह नहीं ताकना होगा।

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Dainik Jagran, Delhi City, Page 12

CSIR-IICT develops membrane to separate harmful chemicals from industrial waste water

CSIR-IICT

22nd March 2017

In times of scarcity of water here's some encouraging news. Indian scientists have developed a simple method to recover usable water from industrial waste.

The technique, using a nanofiltration membrane, ensures the separation of harmful chlorides and cyanide from the contaminated waters in certain chemical industries.

The membrane is economical and the process low pressure, which can substitute the regularly used reverse osmosis for specific applications. Developed by the Hyderabad-based CSIR-IICT (Indian Institute of Chemical Technology), it was demonstrated in Tata Steel's Jamshedpur plant in 2016.

Explaining the process, the IICT scientists led by S. Sridhar said during one of the critical steps of its manufacture, steel from the blast furnace is quenched in a tower, which results in the release of excessive chloride and cyanide into the aqueous stream. Chloride levels above 800 mg/L cause corrosion in the blast furnace.

The team developed a high flux, low fouling nanofiltration membrane which provides high water recovery and sufficient chloride separation. After a laboratory-scale trial run for Tata's was conducted, the design of a pilot plant was taken up under a sponsored project, for prospective installation at Tata Steel's Haldia Metcoke Division, West Bengal.

The capital investment for the pilot plant is Rs. 12 lakh and operating cost, including power consumption, filter replacement, chemicals for maintenance, etc, comes to only Rs. 20 per cubic metre.

The IICT team successfully installed and commissioned the nanofiltration pilot plant of capacity 5.5 M³/h capacity (1.1 Lakh Litres/Day) for the removal of excess chloride from the steel quenching tower effluent at Haldia recently. The plant is now under full fledged operation and its success could result in replication of similar plants of higher capacity (commercial scale of 150-200 M³/hr) for the steel industry to facilitate zero liquid discharge enforced by pollution control boards, to minimise environmental contamination, the IICT said.

Published in:

[Hindu Business Line](#)

Also Published in:

[UniIndia](#)

[WebIndia](#)

CCMB researchers control weight and fat gain in animals

CSIR-CCMB

22nd March 2017

Metabolism of rats, rabbits seems modulated through intervention to promote energy expenditure

The two chains of clusterin protein, which are normally expressed in several tissues and can be found in several body fluids, when present together tend to lower lipid levels but administration of one of its chains — alpha or beta — results in completely different outcomes. Cells treated with a recombinant beta chain tend to accumulate fat while cells treated with an alpha chain showed no increase in lipid accumulation. Rabbits administered with a recombinant beta chain showed nearly 40% increase in weight while animals given an alpha chain showed no such increase. The results were published in the journal *Scientific Reports*.

“Two chains of clusterin when present together tend to decrease body weight but one of the two chains (beta clusterin) increases body weight. This is quite unusual,” says Dr. Ch. Mohan Rao from the Centre for Cellular and Molecular Biology (CCMB), Hyderabad, and the corresponding author of the paper. “So the alpha chain should ideally be compensating for increase in body weight. But the alpha chain does not do that.”

Only lean mass, no fat

“While excess energy gets accumulated in the form of fat when beta chain was injected into rats, we did not see this in the case of alpha chain. One possibility is that the alpha chain helps in the metabolism of food in such a way that fat does not accumulate,” he says. “Dissected rats that were given alpha chain showed increased levels of lean mass.”

Apparently, there was no difference in the food intake between animals treated with alpha or beta chain. “It means that weight increase can happen even when there is no increase in food intake. It is the energy management by the body that is important. And alpha chain seems to modulate metabolism in such a way to promote energy expenditure and thus prevent fat accumulation,” he says.

The effect of alpha and beta chains were tested on myoblast cells, fibroblast and cancer cells. The individual chains were injected into rabbits as well. “In my lab we study the effect of small heat shock protein on health and disease. To raise antibody for clusterin we injected the chains separately into rabbits. One set of rabbits was gaining weight while the other did not. That’s when we investigated the reasons. The animal-house in-charge noticed the change in the animals,” recalls Dr. Rao.

Rats too gained weight

Though the effects of the two chains were seen in rabbits, the researchers turned to rats as more animals were required for investigating the effect of individual chains on animals.

“We could see fat accumulation in cells from day two onwards. We observed for 10 days and fat accumulation continued for all the 10 days; we could study cells continuously only for 10 days,” says Suvarsha Rao Matukumalli from CCMB and the first author of the paper. “In the case of animals injected with beta chain, fat accumulation continued for four-five months. The controls and animals given alpha chain did not show weight or fat gain.”

When cells were administered both the chains simultaneously, the cells did not accumulate fat for two-three days but started thereafter. “Fat accumulation was not as much as when only the beta chain was given but fat accumulation nevertheless continued,” says Ms. Matukumalli. But the effect of both the chains in animals was quite different. “When we introduced both alpha and beta chains together in animals we did not see any weight gain. The animals were very much like the controls,” she says. “Only large-scale, in-depth studies can reveal if alpha chain prevents weight gain.”

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[The Hindu](#)

National Physical Laboratory(NPL)- CSIR dedicates the first “Pristine air-quality monitoring station at Palampur” to the Nation

CSIR-NPL

22nd March 2017

National Physical Laboratory (NPL) has established an atmospheric monitoring station in the campus of Institute of Himalayan Bioresource Technology (IHBT) at Palampur (H.P.) at an altitude of 1391 m for generating the base data for atmospheric trace species & properties to serve as reference for comparison of polluted atmosphere in India. At this station, NPL has installed state of art air monitoring system, greenhouse gas measurement system and Raman Lidar. A number of parameters like CO, NO, NO₂, NH₃, SO₂, O₃, PM, HC & BC besides CO₂ & CH₄ are being currently monitored at this station which is also equipped with weather station (AWS) for measurement of weather parameters.

This station has been dedicated to nation today by Dr. D.K. Aswal, Director, NPL and Dr. Sanjay Kumar, Director, IHBT. A number of senior scientist present included Dr. R.K. Kotnala, Head, Environmental Sciences and Biomedical Metrology Division of NPL, Mr. M.P. Goyal, Dr. S.K. Vats, Dr. Brij Lal, Dr Sanjay Uniyal, and large number of research students. Speaking on this occasion, Dr. Aswal stressed upon the need to promote quality measurements in atmospheric sciences which would help in developing appropriate policy measures for societal goods. He also underlined the need to develop synergies & interactions between all the agencies undertaking atmospheric monitoring for this purpose.

Dr. Sanjay Kumar in his inaugural speech mentioned the need for setting up of such state of art monitoring systems in Himalayan region to assess the vulnerability of region's sensitive ecosystem due to climate change & pollution. During the function, Dr. R.K. Kotnala appreciated the collaboration between the CSIR-NPL & CSIR-IHBT in setting up this state of art monitoring facility which will serve as reference station. Dr. Chhemendra Sharma provided the perspectives and objectives of the CSIR's XII Five Year Plan Project `AIM_IGPHim` under which this facility has been established and thanked the colleagues of NPL & IHBT for their contributions. The Council of Scientific & Industrial Research (CSIR) has funded this project under its XII Five Year Plan projects.

In India, air quality parameters are mostly measured in industrial and residential areas, however, data for air quality of pristine atmosphere is not available in India. NPL's station will contribute to fill this important gap. The NPL's station will also serve as a base station for inter-comparison of air quality monitoring equipment being used in India to improve quality of monitored data in India. As the issues of atmospheric pollution has assumed a significant proportion of social concerns, it is utmost important to ensure quality of atmospheric monitoring so as to devise appropriate policies for abatement of air pollution based on sound scientific data for their effectiveness.

NPL has undertaken activities to contribute in improving the quality of atmospheric monitoring through providing traceable measurement facilities to various stake holders in the country and the NPL's monitoring station is an important step in that direction. In addition, NPL is also developing calibration standards for different pollutant gases and PM10 samplers for use in atmospheric monitoring.

The pristine CAAQMS station houses calibrated state-of-the-art-equipment for the continuous measurements of ambient and greenhouse gases (CO, NO, NO₂, NH₃, SO₂, O₃, PM₁, PM_{2.5}, PM₁₀, hydrocarbons, black-carbon, CO₂ & CH₄), and weather parameters. Because of Palampur's pristine air, and the capability of the new monitoring station for detection of small amounts of pollutants, the impact of faraway pollution sources can be measured precisely. The data taken at this station during past one year shows that the pollution levels are far below the limits of National Ambient Air Quality Standards (NAAQS). In addition, this new station has the experimental facilities to investigate the aerosol/cloud interactions, and such investigations would be helpful in generating a better understanding of the Earth's climate system.

The data generated by pristine CAAQMS station at Palampur will act as background data for the measured pollution at various cities in the country. The generated background data will be shared with different pollution control boards and agencies in the country so that the more precise pollution mapping traceable to standard values can be done, which in turn, would assist policy decisions for the abatement of air pollutants.

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[IndiaEducationDiary](http://IndiaEducationDiary.com)

Seafood may be loaded with harmful microplastics: NIO

CSIR-NIO

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A group of NIO scientists led by senior scientist, Mahua Saha, are studying the distribution, source and effect of microplastic pollution on biota (animal and plant life of a particular region). They have examined six beaches Keri, Calangute and Vagator in North Goa, and Galgibaga, Colva and Mobor in South Goa.

The National Institute of Oceanography (NIO) has found high concentrations of microplastics containing chemical pollutants, in fish tissue, mollusks (squids, mussels, etc) and sea birds off the Galgibaga and Keri beaches.

When consumed by fish, microplastics don't settle as sediments but become a part of their biomass, which when consumed by humans, can have an adverse impact on health.

These microplastics contain two chemical pollutants; persistent organic pollutants like PCB and PAH that are hazardous to the biota; and plasticizers like bisphenol-A which are insoluble in water.

"We have found high concentrations of these pollutants in fish tissue, mollusks and sea birds of these beaches. When we consume these organisms, the concentration level of these pollutants magnifies in our body because of its solubility in lipids. This is highly carcinogenic," Saha said.

NIO's acting director, Dr Prasanna Kumar, said large amounts of plastic are getting accumulated in the gyres (large system of circulating ocean currents) of the Indian Ocean, Arabian Sea and the Bay of Bengal, a phenomenon that has occurred only in recent years.

"The issue of microplastics in our oceans will eventually become a universal problem. The entire gamut of the marine food web will be affected," he said.

The scientists are also looking at monsoon waves and pattern of currents to determine the pathway of microplastics.

"Fresh inputs of microplastics are washed in during the south-west monsoon, while disintegrated ones come in during the north-east monsoon," Saha said.

NIO is currently trying to determine the source of all the plastic; how much microplastic has accumulated in the biota, to what levels they hinder the sea's oxygen and carbon levels, and if there is any accumulation at the phytoplankton (microscopic plants) level.

Kumar told STOI that microplastics washed ashore, accumulate on the sand. Leaching of the microplastics in high concentration will therefore pollute the sand as well, he said.

"NIO is ready to join hands with any agency that can bring about a change in the consumption pattern of plastics and/or get a legislation that can curtail their use," he added.

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[TOI](#)

A CLEAN-UP FOR YOUR VEGGIES

CSIR-NCL

23rd March 2017



Fresh and organically grown are the key words when it comes to fruit and vegetables. But, given a closer look, these supposedly healthy food items are often drenched in pesticides, used by farmers to yield more produce. With this in mind, a researcher from the city has developed a natural detergent which could resolve the problem.

Mihir Mehta, founder and director of start-up Green Pyramid, who worked on the product, was formerly part of the biochemistry lab at National Chemical Laboratory (NCL). He shared that the formulation has been devised by using yeast as a catalyst, as it reacts with glucose and vegetable oil. The former is the carbon source, the latter is for fat. The byproduct of this reaction is a glycolipid, a detergent-like substance.

“Pesticides on food items are not water soluble and hence do cannot be cleaned with tap water. The glycolipid molecule is an amphiphile (both water and fat-loving) and that is a key feature of the formulation,” Mehta explained.

The motivation came from a report that stated that pesticides found in Indian fruits and vegetables are on an average 750 times higher than European standards.

Work began in June 2016. Mehta was researching ways to tackle cancer at NCL and had realised that the drugs weren't effective in targeting the cells as they were not water soluble.

“It struck me then that we have cleansing products for our clothes, utensils and skin, but not for items we consume. The strength of the formula is that it is organic, odourless and tasteless. Also, since it is high in concentration, one needn't wash the vegetables with water afterwards,” he said.

Around 10 ml of the formulation, when diluted with 1 litre of water, can be used to wash up to 6 kg of rice, fruits or vegetables. The product which is likely to hit the market by May, also helps in extending the natural shelf life of perishable items.

Apart from consumers, Mehta's target audience also extends to farmers and distributors. “Maharashtra's annual losses incurred due to fruits and vegetables being rejected by exporters amounts to Rs 10,100 crore. If farmers and distributors were to use the product, the losses could be minimised to some extent,” he said.

The product will be marketed as Bioclean (for industrial use) and Evergreen (for retailers). Some samples have already been offered for feedback, which has been unanimously positive.

Atul Pisal, founder of online vegetable delivery start-up Aeveg shared that similar products currently available on the market are chemical-based, which defeats the purpose altogether. “Bioclean doesn't damage the quality of the fruit or vegetable. Using it ensures I will be able to provide a cleaner product to my customers.”

Gouri Jadhav an organic farmer and founder of Earth Alliance, informed that she had tried the product on exotic vegetables such as bell peppers, cherry tomatoes, zucchini and avocados. “There was no fungus growing on the cherry tomatoes and avocados as usually happens when they ripen. The shelf life of the cherry tomatoes was also extended by two extra days,” she shared.

Ashish Ingle, a distributor of vegetables and fruits across the state, got the product’s efficacy tested at an independent lab, and the pesticides levels had reduced by almost 80 per cent.

He said, “Products like this are necessary to reduce the harmful effects of using pesticides in the long run. Farmers will not stop using them as they help in increasing the yield of their produce. So, it is up to the consumers.”

Mehta and his team are currently working towards making the formula applicable to seeds, seedlings and flowers to increase longevity, and wet wipes to clean fruit when on the move.

Published in:

[Pune Mirror](#)

NCL to supply free water purifiers, oxygen machines for tribals in Palghar, Thane

CSIR-NCL

23rd March 2017

This is where the cost-effective machines developed by Genrich Membranes Pvt Ltd come in handy. The company supplies these oxygen enriching machines to NCL.

Nearly 40,000 tribals from Thane and Palghar districts in the state are set to have access to clean drinking water, along with affordable healthcare, at local hospitals. The city-based CSIR-National Chemical Laboratory (NCL) will be distributing water purifying machines and oxygen enriching units in tribal schools and government hospitals free of cost.

The first batch of these equipments, which are ready for dispatch, is being developed as part of the CSIR 800 programme, where each of the 38 Council of Scientific and Industrial Research (CSIR) labs in the country are mandated to set up Gramin Vigyan Kutir (CSIR tech village) and develop these backward areas using

First proposed in 2011, the plans to set up tech villages in the state had to be scrapped due to problems in procuring land. Later, under a new plan designed about two years ago, the lab was asked to transport necessary equipments or technological interventions to help improve the lives of tribals.

“This initiative is being undertaken solely to make a difference in the lives of people who have limited access to even basic amenities. That’s why we decided to help them with these elementary facilities, machines that provide pure and clean drinking water and oxygen enriching units to be used at the rural hospitals,” said programme in-charge and senior NCL scientist P K Ingle.

Thane is the 10th largest district in the state, with tribals constituting about 14 per cent of its total population. The tribal communities live in highly inaccessible areas and are deprived of 24-hour power supply, among other basic amenities.

“... At least 20 per cent of patients admitted at government hospitals require oxygen cylinders during treatment,” said Dr Kanchan Vanere, a civil surgeon from Palghar. However, availing the refill of oxygen cylinders is a major cause of concern. “Whenever oxygen cylinders run dry, the nearest refill options are available either in Thane or Nashik,” said Dr Vanere, who said the district is in the process of procuring 12 such machines from NCL.

This is where the cost-effective machines developed by Genrich Membranes Pvt Ltd come in handy. The company supplies these oxygen enriching machines to NCL.

“The machine is capable of supplying up to 35 per cent concentrated oxygen enriched air, best suited for patients with severe lung disorders, asthma or COPD,” explained the company’s Chief Operating Officer, Rajendra Kharul.

The lab is also providing water purifying machines to government hospitals and ashram schools in the tribal belt . “...We are planning to procure 300 units of 50-litre capacity, particularly for smaller establishments,” said Ingle.

The NCL is also sponsoring the construction of 20 toilets, particularly for girl students, in the ashram schools of Palghar.

Published in:

[Indian Express](#)

CSIR-NEERI to celebrate 'World Water Day' on Mar 22

CSIR-NEERI

21st March 2017

CSIR-NEERI will celebrate the 25th World Water Day on March 22, 2017 at its premises, as part of the 75th Platinum Jubilee Celebration Year of its parent organization Council of Scientific & Industrial Research Institute (CSIR), Ministry of Science & Technology and Earth Sciences, Government of India. The event is organised exclusively for students studying in various colleges and many with aspirations to build a career in water sector. The entire programme has been designed considering the motto, "By the students, for the students".

On World Water Day at NEERI, skit and short film competitions are being held for students. An overwhelming response was received from young enthusiasts all around the city and they

came up with innovative ideas and acts revolving around the theme of World Water Day 2017. Due to a large number of entries, the competition is planned to be held on March 21. The winning skits and short films shall be enacted and screened respectively in World Water Day Function on March 22, 2017 from 3.30 pm onwards.

The Mayor Nanda Jichkar will be chief guest and Municipal Commissioner Shravan Hardikar will be guest of honour and deliver World Water Day thematic address on "Wastewater". The panel discussion will also focus on the queries of the students related to water and opportunities in water sector. Students from various colleges are invited to participate in World Water Day.

World Water Day is an international observance day, held annually on March 22 for focusing attention on the importance of freshwater and advocating for the sustainable management of freshwater resources. UN-Water co-ordinates the World Water Day campaign and proposes the annual theme every year. This year, World Water Day has the theme “Wastewater”. Under this theme, the year 2017 provides an opportunity to integrate and build upon the previous World Water Days to emphasize the symbiosis between water and wastewater in the pursuit of sustainable development.

Published in:

[Nagpur Today](#)

Expert Team Of CSIR-CIMFR To Inspect Jagamohan Over Ventilation Issue

CSIR-CIMFR

21st March 2017

As smoke is likely to become an issue during the fabrication of stainless steel box portal frame to permanently secure Jagamohan, the hall facing the 12th century shrine of Lord Jagannath, two scientists of CSIR-Central Institute of Mining and Fuel Research (CIMFR) will visit today, on the request of Shree Jagannath Temple Administration (SJTA), to inspect the sanctum sanctorum and Jagamohan.

The team will hold discussions with the SJTA on the steps that can be taken for smooth circulation of oxygen and carbon dioxide in the shrine considering the Jagamohan issue and problem in ventilation of the sanctum sanctorum.

Senior Principal Scientist and Professor of CSIR-CIMFR Dhanbad, Dr JK Pandey, said that the issue can be resolved if the work is done as per the instruction of the scientists.

Talking to media persons Pandey said, “We have to suggest them how to clear the smoke that generates during repairing work in buildings, how to improve the air circulation so that the devotees visiting the shrine will get a comfortable environment. Basing on the visitors per hour we can know how much carbon dioxide they are producing in 20-30 minutes, what is the ventilation capacity, what is the suction capacity of the fans installed overhead and the resistance capacity. We can suggest a solution after the study.”

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70 stations to record Pune's noise pattern

CSIR-NEERI

19th March 2017

The Maharashtra Pollution Control Board (MPCB) has roped in National Environmental Engineering Institute (NEERI) to undertake an expansive study to get the complete picture of noise pollution in urban areas across the state.

The institute will set up noise monitoring stations at more than 70 locations around Pune, officials said. It is the first such study of this scale in the country, they added.

Project leader and senior scientist at NEERI Ritesh Vijay said this type of pollution has not been given enough attention. "Noise is present everywhere you go in an urban setting. With the project, we will study noise pollution across the state by constantly monitoring its levels in different locations, categorise them by source,

and prepare a database for the authorities to manage the issue," he said.

A Bombay high court order on several public interest litigations (PILs) against noise pollution had started the idea in 2016. The high court had then suggested to MPCB to undertake noise mapping to understand the pattern of this pollution. MPCB contacted NEERI to begin the study in January.

"NEERI chairman chose the team and initially the plan was to study 10 cities which later expanded to 27 cities. In the Pune zone, seven different cities will be covered," Vijay said.

In Pune, because of its scale, the team will set up between 70 and 80 noise pollution monitoring stations.

NEERI has begun conducting workshops at each of the zones to chalk out and research the implementation plan. "We have conducted one such workshop with MPCB and civic body officials in Mumbai, and the next one is scheduled in Nagpur. A week after that, we will conduct the workshop for Pune zone," he said.

Vijay said such a large-scale study on noise pollution has never been conducted in the country. "A lot of data will be generated and the classification as well as its usage to improve the situation of these urban areas will be clearer once we have finished discussion with the concerned authorities."

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CSIR-NML

18th March 2017

देश को एनएमएल की देन से अभिभूत हुए भावी शिक्षक

जागरण संवाददाता, जमशेदपुर : शुक्रवार को स्कूल-एनएमएल इंटरैक्टिव प्रोग्राम एवं नेशनल एकेडमी ऑफ साइंस झारखंड चैप्टर द्वारा प्रायोजित कार्यक्रम के तहत करीम सिटी बीएड कॉलेज के 35 भावी शिक्षकों ने सीएसआइआइ-एनएमएल का दौरा किया।

तीन घंटे के इस दौरे के क्रम में उन्हें वैज्ञानिकों से मिलने, कई तकनीकी प्रक्रिया, फिल्म शो, संग्रहालय देखने एवं संवाद करने का अवसर मिला। इन्होंने एनएमएल की देश की देन को डॉक्यूमेंट्री शो के माध्यम से देखा और

उसकी कार्यप्रणाली से संबंधित सवाल पूछे। प्रिंसिपल साइंटिस्ट डॉ. पीएन मिश्रा ने एनएमएल की स्थापना एवं उद्देश्य तथा अनुसंधान एवं विकास कार्यक्रम में इसकी भूमिका के बारे में जानकारी दी।

यहां दौरा करने के क्रम में जब उन्हें यह बताया गया कि धातुओं के विकास एवं अनुसंधान में टाटा स्टील एवं एनएमएल मिलकर काम कर रहे हैं तो भावी शिक्षक काफी अभिभूत हुए। इस भ्रमण में बीएड कॉलेज के शिक्षक जया दास, शीतल पांडेय, डॉ. सुचिता भुइयां एवं रितु राज तिग्गा भी शामिल हुए।



सीएसआइआइ-एनएमएल में करीम सिटी बीएड कॉलेज के 35 छात्र • जागरण

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----Jamshedpur, 18th March 2017

The Avenue Mail
----Jamshedpur, 19th March 2017