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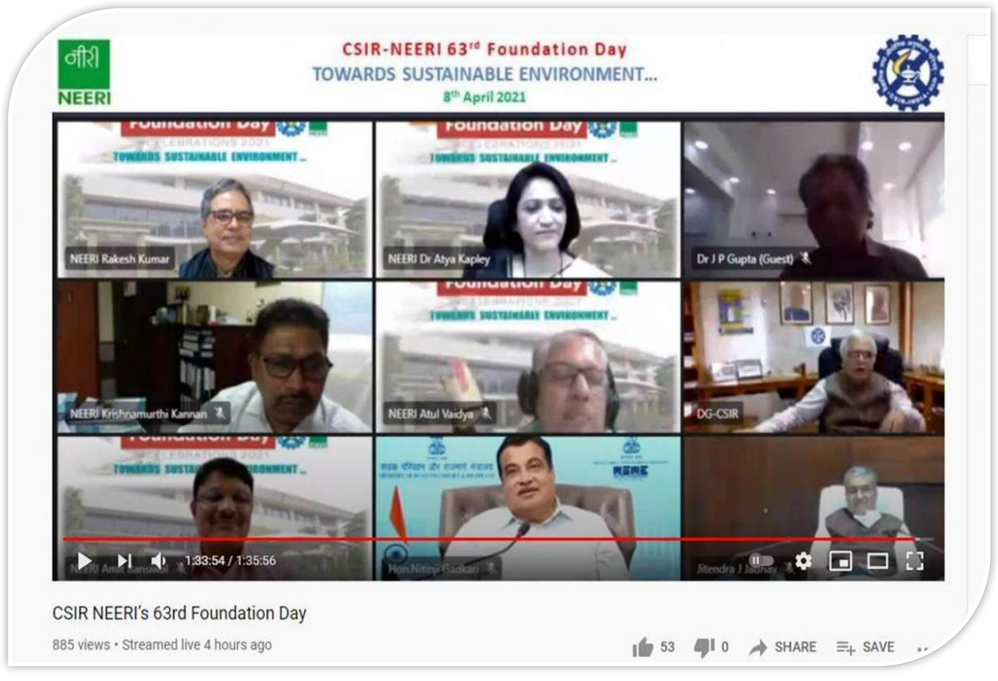

VIT-AP inks Academic & Research MoU with CSIR-IICT

CSIR-IICT

10th April, 2021

Hyderabad: The School of Advanced Sciences, VIT-AP University, and CSIR-IICT have signed a Memorandum of Understanding (MoU) here on Saturday. According to a press release, the collaboration seeks to bring forth project proposals in areas of mutual interest of faculty and students which could be submitted to various agencies/industries for funding.

Dr. SV Kota Reddy, Vice-Chancellor, VIT–AP University said the collaboration will help faculty and students to get an opportunity to conduct research in advanced thrust areas in science and technology. VIT-AP along with IICT look forward to working on areas that would be beneficial to the academia which in turn would reflect on to the society.

Dr. S.Chandrasekhar, Director CSIR-IICT, said that signing an MoU with VIT-AP will encourage more young men and women to take part in research. He shared that this pact will assist us to conduct societal relevant scientific programmes jointly.

Dr.C.L.V. Sivakumar, Registrar, VIT-AP University, Dr. N.V. Satyanarayana Chief Scientist, IICT, were present on the occasion.

Published in:

Telanganatoday

J&J in talks with Modi govt to start clinical trials for its single-shot Covid vaccine in India

CSIR

9th April, 2021

New Delhi: US pharma giant Johnson & Johnson has said it is in talks with the Modi government to start clinical trials for its single-shot Covid-19 vaccine in India. The company has informed the Central Drugs Standard Control Organisation (CDSCO), the Indian drug regulator, about its plan to start "bridging clinical trials" soon.

The move will help India ramp up the vaccination drive amid the rising number of Covid cases in the country.

"We are in discussions with the Government of India with the objective of starting a bridging clinical study of our Janssen COVID-19 vaccine candidate in India, subject to local regulatory approvals," J&J's spokesperson told ThePrint via an email.

"At Johnson & Johnson, we remain fully focused on bringing a safe and effective COVID-19 vaccine to people around the world, if authorized for use by local health authorities," the spokesperson said. A bridging trial is a supplementary trial performed in a new region or country to get more clinical data on efficacy, safety, and dose regimen. It can be done on over approximately 1,000 participants.

Johnson & Johnson Covid vaccine can be shipped and stored at standard refrigeration temperatures. A senior official at CDSCO also confirmed that the company has reached out to the regulator and will submit the protocol of the trial before the expert panel, in the coming weeks.

"The process for clearance of bridging trials would be the same as given to Dr. Reddy's for Sputnik vaccine and Serum Institute of India (SII) for AstraZeneca-Oxford University vaccine," he said requesting anonymity.

Good news for India

India is currently using two Covid vaccines — Covishield, developed by Oxford University and AstraZeneca, and Covaxin, developed by Bharat Biotech in collaboration with the Indian Council of Medical Research.

As Covid cases surge in India, the addition of more vaccines will help the government to expand the vaccination drive across age groups.

Shekhar Mande, director-general of the Council of Scientific and Industrial Research (CSIR), India's apex scientific research organisation, had earlier told ThePrint that India should find ways to bring Johnson & Johnson to India.

"J&J's single-shot vaccine looks quite exciting," he had said, adding that the country needs more options to conclude the vaccination drive faster.

The Covid-19 curve shows that the cases in the country are rising much faster this time, despite the fact the spread of the disease is much better understood now. In the last 24 hours, India has recorded around 1,30,000 cases and 780 deaths.

Published in:
Theprint

Nitin Gadkari calls for the “deployment of green technologies to improve environment and economy”

CSIR-NEERI 8th April, 2021

CSIR-National Environmental Engineering Research Institute (CSIR-NEERI) celebrated its 63 rd NEERI foundation day on 8 April 2021. The Chief Guest Nitin Gadkari, Hon’ble Union Minister for Road Transport and Highways / Micro, Small & Medium Enterprises (MSME) addressed the staff of CSIR- NEERI as well as invitees on this occasion. Dr. Shekhar C. Mande, Director General, Council of Scientific & Industrial Research (CSIR) and Secretary, DSIR, Dr. Jitendra J. Jadhav, Director, CSIR-NAL, and Dr. Rakesh Kumar, Director, CSIR-NEERI were also present on this occasion.

Speaking on the occasion of 63rd NEERI Foundation Day celebrations of CSIR- NEERI, the Hon’ble Minister Nitin Gadkari has called for the deployment of green technologies to improve environment and economy. He praised the exceptional contributions of CSIR-NEERI made to environment and society involving Namami Gange Programme and Green National Highways Corridor Project. He urged CSIR to extend the outcome of research for betterment of the society through communication, coordination and cooperation.

He advised that the social media can be very effective tool in this regard. He stressed on the need to develop economically viable green hydrogen as a clean energy. It is encouraging to see that the CSIR Institutes including CSIR-NEERI are also striving to develop green technologies in line with the Government’s mission to achieve sustainable development, he added.

Gadkari highlighted the prospects of adding value to carbon dioxide while managing solid and liquid waste. He suggested to develop specific training programmes in the area of tree transplantation and its management to generate employment and also support environment. He advised CSIR to contribute more for MSMEs as they are engines of our economy to achieve sustainable development. He also urged DG-CSIR to share knowledge to address road sector, farm sector and waste management.

The minister urged citizens to transform themselves as responsible consumers for managing the transition to a green economy. The government is aiming 'Green Growth' as an ambition and challenge to achieve sustainable development.The BioSEM Lab (Biological Solutions for Environmental Management Lab) and The Energy and Resource Management Facility, wherein the R&D activities for sustainable energy management and exploring the interrelated aspects of environmental systems will be taken up, were dedicated to the nation.

BioSEM Lab will help in resolving bottleneck issues related to large-scale application of microorganisms to detoxify, degrade, and remove environmental contaminants. The Energy and Resource Management (ERM) Facility will focus on the generation and efficient utilization of cleaner energy, rural energy needs, and development of energy efficient environmental technologies with minimum footprint. The facilities will be instrumental in developing and promoting economic and environment-friendly clean and green technologies in the country.

Dr. Mande, DG-CSIR briefed about the immense contributions of CSIR-NEERI towards society, industry and judiciary. He informed that CSIR-NEERI is involved in sewage surveillance for COVID-19, in association with CSIR-CCMB. He also declared that CSIR has given in-principle approval to set up National Centre of Excellence for Carbon Capture, Use and Storage at CSIR-NEERI.

Dr. Jadhav, Director, CSIR-NAL elucidated the environmental concerns of aviation sector wherein waste management and indoor air quality are of utmost importance. R& D challenges in this sector should be taken up by CSIR-NEERI scientists. He also highlighted the work of lake cleaning using JALDOST, which is being implemented in Bangalore and Niwari of UP.

Dr. Rakesh Kumar outlined the R& D journey performed by CSIR-NEERI since last 63 years with some notable contributions. He assured that CSIR-NEERI will emerge as a global leader in the area of environmental science and engineering as various steps have already been taken up for repositioning.

NEERI Foundation Day Awards were announced on this occasion to be given to the CSIR-NEERI staff for their significant contributions. Lifetime Achievement Award was conferred to Shri Baba Deshpande for his lifelong service to the society. Dr. J. P. Gupta also received Lifetime Achievement Award for his lifelong contribution to Indian Chemical Industry and Environment. The names of the winning students of the quiz and storyboard competition were also announced. In Category I: Class VIII-X, Anjali N Sonekar, CDS, Nagpur to get first prize, second prize to be shared by Aarush Das Bansiwal, DPS, Nagpur and Sushrut Gajanan Khadse, NEERI Modern School, and third prize to receive by Sidhi Sontakke, Navodaya Vidyalaya, Wardha. In Category II: Class XI-XII, Divya Bhande, Centre Point School, Nagpur to get first prize, second prize to be conferred to Adarsh Upadhyay, Kendriya Vidyalaya-CISF, Bhilai; and third prize to receive by Nidhi Thakur, St. Ursula School, Nagpur.

Dr. Atya Kapley, Sr. Principal Scientist & Head, DRC, CSIR-NEERI delivered the welcome address and Dr. A N Vaidya, Chief Scientist & Head, CHWMD, CSIR-NEERI proposed the vote of thanks. Dr. Amit Bansiwal, Sr. Principal Scientist & Head, SEAF, CSIR-NEERI announced the NEERI Foundation Day Awards.

Published in:
thelivenagpur

Conduct tracer test to find construction impact on Banganga water: Bombay HC to NGRI

CSIR-NGRI,NEERI

8th April, 2021

MUMBAI: Bombay high court on Thursday directed Hyderabad-based National Geophysical Research Institute to conduct a tracer test to fully establish the possible impact of a nearby construction on the inlet water of the Banganga Tank at Walkeshwar, Malabar Hill. The direction followed after a preliminary report of an HC appointed committee of experts - including from NEERI, NGRI, Central Ground Water Board, IIT-Mumbai - said the construction is on an 100 metre upslope in the north-east of the tank and there are no cracks or seepages on the rocks due to the piling work. It suggested a tracer test "to confirm the existence of any underground fracture which connects the construction plot with the tank." And a tracer test by NGRI "to fully establish, linkages if any, on the possible impact of the construction on the inlet water quality." A bench of Chief Justice Dipankar Datta and Justice Girish Kulkarni. heard a petition by the Gaud Saraswat Brahmin Temple Trust that extensive piling and construction work was affecting the Grade-I structure and its water had turned muddy. Asked when a final report will be made available, additional solicitor general Anil Singh said it will require a three-month monitoring. Singh informed that NGRI has nominated a senior scientist to provide inputs on observations made in the committee's report.

The judges said it will be appropriate to wait for NGRI as well as the committee's final reports. "We are not experts. Heritage structure has to be preserved. There has to be no blockage to the flow of water. Even during summer months there has to be constant flow that should not be blocked at any point of time," the CJ remarked. The judges directed NGRI to prepare and submit the report "as early as possible and positively" before April 21 and also give 48 hour notice to the developer before undertaking the test which has to be done when construction work is on.

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Timesofindia

CSIR-CMERI Oxygen Enrichment Unit – A Potential Multifaceted Life Saver

CSIR-CMERI

8th April, 2021

New Delhi: An Oxygen enrichment unit is a device, which concentrates the Oxygen from the air around us by selectively removing nitrogen to supply an oxygen-enriched air. The concentrated Oxygen is delivered to the patients, having respiratory diseases, through oxygen mask or nasal cannula. The device may be used in remote places, homes or hospital like facilities for patients with chronic obstructive pulmonary diseases (COPD), chronic hypoxemia and pulmonary edema. It may be used as an adjunct treatment for severe sleep apnea (in conjunction with a continuous positive airway pressure unit).

The CSIR-CMERI indigenously developed Oxygen enrichment unit works on the principle of Pressure Swing Adsorption (PSA) and utilizes Zeolite Columns to selectively remove nitrogen from air under certain pressure, thereby increasing the Oxygen Concentration. The subsystems of oxygen enrichment unit are Compressor, solenoid operated 3/2 valves, flow meter and Pre-Filter. The Compressor feeds pressurized air into the module and oxygen is enriched on the permeate side due to its preferential permeation over nitrogen. The suspended particles, viruses, bacteria present in the air are filtered out by the available HEPA filter. The unit has been tested in TUV Rheinland, Bangalore as per IEC 60601-1 3.1 edition: 2012 standard for Electrical Safety compliance whereas the oxygen enrichment percentage vis-a-vis outflow has been tested with CSIR-CMERI in-house facility. The Oxygen Enrichment Unit developed by CSIR-CMERI is capable of delivering up to 30 LPM Oxygen enriched air, which is absent in the other commercially available units. The machine can regulate flow with accuracy 0.5 Ipm. This facility will help in High Flow Oxygen Therapy, which is proven to be a better method in treatment and management of COVID-19 patients.

The commercially available Oxygen Enrichment Units generally work till 8000 ft from sea level. With an optional plug-in module, this unit can work upto the altitude of 14000 ft with a

penalty on flow rate thereby making it very handy for the usage of the high altitude terrain battlefield in contingencies.

Though some other research establishments in the country have also developed such system, CSIR-CMERI's system having an outflow at 93% oxygen concentration level and 5 LPM is far ahead than those which merely gives the outflow of around 27-35%. The performance benchmarking of the unit has been carried out which find it at par with the reputed MNC's.

Prof. (Dr.) Harish Hirani, Director, CSIR-CMERI talking about the system shared that CSIR-CMERI developed oxygen enrichment unit may be very useful for homes, hospitals, Defense forces particularly in high altitude terrain and remote rural localities. It can be more effective and crucial for treating the patients of COVID-19. He also added that this unit may help reduce the demand for oxygen cylinders and ventilators and due to the rise in air pollution its demand is supposed to grow very rapidly as it is also useful for maintaining proper Oxygen level for an optimum healthy environment.

The material cost of this unit is approximately Rs. 35,000/-. The technology has been transferred to M/s. Zen Medical Technologies Pvt. Ltd., Ranga Reddy, Telangana.

Published in:
Indiaeducationdiary

LIG, HIG highest generators of plastic waste in city

CSIR-NEERI

6th April, 2021

Low Income Group (LIG) and High Income Group (HIG) of Nagpur city are generating highest 16.54% and 14.36% of plastic waste per day respectively, revealed the Environment Status Report (ESR) of CSIR-National Environmental Engineering Research Institute (CSIR-NEERI). Nagpur is generating an average of 1,150-1,200 tonnes per day (TPD) of Municipal Solid Waste (MSW), with an average per capita waste generation of 4.46 kg out of which only 150-200 TPD of waste is being processed.

CSIR-NEERI conducted a study where it collected MSW samples from different socio-economic groups that is Low Income Group (LIG), Middle Income Group (MIG) and High Income Group (HIG) covering all the 10 zones of the city. The samples were collected from 23 different locations in the city. Though the LIG is producing less amount of waste per day, it is the highest plastic waste generating group with 16.54%, the study revealed. The study is distributed in five categories of waste that is organic, paper, plastic, metals and glasses, and inert. Organic waste generation is highest in all groups but plastic and inert waste generation are also in higher side. The HIG which is well educated and well-to-do group is also generate 14.36% plastic waste in the city. However, MIG generates 2.1% of plastic waste per day. In over all category, MIG and HIG are observed to produce the higher amount of waste as compared to the LIG. Generation of inert waste in the city is also in higher side. Inert waste is neither chemically nor biologically reactive and will not decompose or only very slowly. Examples of this are sand and concrete.

LIG and MIG are observed to produce the higher amount of inert waste as compare to HIG. “It is evident from the data that Maharashtra Plastic and Thermocol Products (Manufacture, usage, sale, transport, handling and storage) Notification, 2018 is not being followed and implemented. Around 60% of plastic waste that is collected in India is single use plastic, which can be projected in Nagpur as well,” said Surbhi Jaiswal, Team Lead, Green Vigil Foundation. “Single use plastic eradication is of utmost concern on first hand. Single use plastic are the major cause of concern as it ends up in water bodies and dumping areas of our cities.

Citizens are certainly aware about plastic ban and usage, but are not conscious enough to restrain from using it,” she added. SWM is realised as one of the major problems in the city by NMC. The increase in the quantity of the waste generated, regular change in the quality of waste and inappropriate processing and disposal method is the main aspects involved in SWM. There should be focus on designing intelligent machines for segregation and disposal of wastes in line with intelligent vending machines. One of the prime hindrances in waste management is the revenue needed for different aspects the process. Evidently, the study stated that the waste management system in Nagpur is presently inadequate and improvement is needed to maintain our environment and keep our city clean.

Published in:
Thehitavada

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