

CSIR IN MEDIA



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CSIR keen to collaborate on m-RNA tech, says chief Mande

CSIR-IGIB

25th January, 2021



Research institute gearing up for a study post-vaccination The doors of the Council of Scientific and Industrial Research are open to anyone wanting to work on the m-RNA technology in India, said CSIR director general Shekhar C. Mande.

“It is an exciting science and this is the first time vaccines have use this technology. We are willing to partner with anyone who wants to collaborate on this technology,” Dr Mande told Business Line, clarifying that they were not part of discussions on these vaccines. Two Covid-19 vaccines from US companies Pfizer and Moderna use this platform. And while Pfizer has a presence in India and has committed to bring its vaccine, Moderna does not have a local collaborator and there is much speculation on who

would make a suitable partner. Scientific study The CSIR is meanwhile gearing-up for a post-vaccination study to capture how the Covid-19 vaccines that are being given in India have worked. It will be a small scientific study sampling different people in terms of antibodies created in the system and how long the immunity lasts, he said.

It would be a mix of people who have intense exposure to the virus like healthcare workers and others will less exposure, he said. And since it would involve people who received both Covaxin and Covishield vaccine, the study would provide a comparison, he said. With a network of 37 laboratories, he said, the study would be across India and would start after the second dose.

CSIR has been involved with Covid-19 related research, including the Feluda-CRISPR diagnostic technology developed by the CSIR-Institute of Genomics and Integrative Biology's (IGIB), that has since been commercialised by TATA Medical

and Diagnostics Ltd, a fledgeling healthcare venture from the Tata Group. Another collaboration where its research has been taken ahead involves drugmaker Cipla on antiviral Favipiravir. The pandemic year has illustrated the need for a quick response and solutions, he said, hopeful that the upcoming Union Budget would increase the allocation to the scientific sector.

Published in:
[Business Line](#)

Terrestrial water storage dips in Chennai, neighbouring districts

CSIR-NGRI

24th January, 2021



The decline is steady, but not alarming, says a study by Anna University

The terrestrial water storage, both surface and groundwater, has been decreasing in Chennai and neighbouring districts since 2002. The decline is steady, but not alarming, according to a study done by the Department of Geology, Anna University. The total storage in Chennai and neighbouring districts has been decreasing by 0.12 cm every year in an area of 8,242 sq. km., with Pazhaverkadu to the north and close to Puducherry to the south.

Satellite data

The study, which was taken up along with the National Geophysical Research Institute-CSIR, Hyderabad, has integrated

the satellite data extracted from GRACE (Gravity Recovery and Climate Experiment) and the data obtained from the Public Works Department. GRACE was a joint mission of NASA and the German Aerospace Centre. “The satellite gravity data have been globally used in various applications for monitoring changes in water storage on a large scale. Our study attempts to explore the changes in surface and groundwater storage over a region to facilitate a rapid assessment and chalk out comprehensive projects for conservation,” said L. Elango, professor, Department of Geology, Anna University. Rainfall has slightly increased over the districts around Chennai since 2002 and groundwater storage, too, has improved after June 2015. However, the overall groundwater level in the past 18 years has been dipping by 0.011 cm every year, said Samurembi Chanu, a research scholar who was part of the study.

Published in:
[The Hindu](#)

No water contamination in West Godavari, says official

CSIR-IICT

24th January, 2021



All 25 persons in Komerapalle of West Godavari who were hospitalised after they showed symptoms of headache, fainting and seizures have been discharged, said joint collector (medical) Himanshu Shukla on Saturday. “Results of the water samples sent to a Vijayawada laboratory and Council Of Scientific And Industrial Research-Indian Institute Of Chemical Technology (CSIR-IICT), Hyderabad have arrived. There are no signs of water contamination either in Eluru, Pulla or Komerapalle. Food samples have been sent to multiple labs, and results are expected to be communicated to us by tomorrow (Sunday),” Shukla added. Meanwhile, commissioner for medical, health and family welfare Katamneni Bhaskar conducted a review meeting in

view of the incidents of an unknown disease rocking the district, and instructed all health officials to be vigilant in case there is an outbreak. He inquired about the cases registered so far, and sought details of those discharged. The officials have been asked to take necessary steps as soon as the food sample test reports are sent back; the Eluru administration and all gram panchayats in the district were asked to take special care of the sanitation. “Garbage accumulated on the streets should be removed from time to time and overflowing sewers should be cleaned regularly. Drinking water should be chlorinated and only purified drinking water should be supplied. People need to be made aware of the precautions to be taken to arrest the spread of seasonal infections,” the commissioner said. As many as 12 people who fell sick were in the 12-35 age group. At Eluru district hospital, specialist doctors monitored the health condition of all the 25 persons. The incident came close on the heels of a similar event at Pulla in Bhimadole mandal a few days ago. As many as

29 people fell sick between January 17 and 19, all of whom were discharged earlier this week. A total of 50 beds have been arranged in the hospital for the mystery illness cases.

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[The Indian Express](#)

Himachal Pradesh to bring 302 hectares area under Heeng cultivation in next 5 years

CSIR-IHBT

24th January, 2021

To make India self reliant in Heeng production, Himachal Pradesh government has set the target of bringing approximately 302 hectares area under cultivation in three districts of Lahaul-Spiti, Mandi and Kinnaur during the next five years. It has been planned to use the barren land in the next few years on the basis of results of the pilot projects already started. Necessary trainings, technical knowhow and farm expertise to all farmers will be provided free of cost by state agriculture department till commercial cultivation of Heeng starts in the state.

State's department of agriculture has taken lead in identifying farmers and providing them Heeng seedlings, plantation alongwith other necessary infrastructure and technical support free of cost to motivate farmers to take up Heeng cultivations in their fields.

Agriculture minister Virender Kanwar said that presently 5,000 square meters area has been taken up for Heeng cultivation on pilot basis at Kwaring and Madgran villages of Lahaul-Spiti district; Janjhehli and Moviseri villages of Mandi district beside Kalpa and Pooh villages of Kinnaur district marking a historical shift in farming practices in the state.

He said that higher snow bound areas of three districts have been identified for Heeng cultivation in the State. He said that in Lahaul-Spiti district -Keylong, Kwaring, Beeling and Madgran areas have been identified; in Mandi district- Janjhehli and Moviseri have been identified and Kinnaur district- Kalpa and Pooh have been identified as per the recommendation of CSIR-Institute of Himalayan Bioresource, Palampur (CSIR-IHBT Palampur).

He said these sunny and hilly areas with cold, dry temperate region with minimum temperature ranging from minus 5 to minus 10 degrees Celsius are best suited for the growth of Heeng. He said that as the root system of this plant is very deep so sandy clay loam

soil is best suited for its cultivation “These cold desert areas which receive annual rainfall ranging from 100-350 mm are geo-climatically best suited for Heeng cultivation,” said the minister, adding that 2,100 Heeng saplings have been distributed to 45 farmers in the state and 1,233 saplings have been planted at the experimental farm of IHBT Palampur under the pilot project so far. He said that six accessions of Heeng saplings have been planted in the state at different locations under the Technical Supervision of CSIR-IHBT, Palampur and Department of Agriculture, Himachal Pradesh. The first pilot project of Himachal Pradesh for asafoetida cultivation has been successfully rolled out in tribal area of Lahaul-Spiti with a new promise of transforming the lives of Himalayan farmers and providing a boost to the snowbound local economy. The first seedling of Heeng plantation at government level was done in the state at Kwaring village of Lahaul valley, in Lahaul-Spiti district at an altitude of about 11,000 feet above sea level on October 15 last year marking the initiation of its cultivation in state and the plants are likely to be ready for extraction of oleo gum resin after 4-5 years of plantation.

Virender Kanwar said that new areas adjoining present location in three districts will be included in the Heeng cultivation where pilot project results have shown positive results to make Heeng cultivation a standard practice in India. He said that progress of this pilot project in the vast wasteland in the cold desert conditions of the region is being closely watched by farm scientists of CSIR-IHBT Palampur and Department of Agriculture, Himachal Pradesh. The farm scientist of CSIR-IHBT Palampur would provide the technical know-how and update the skills of the farmers involved in the pilot project in Heeng cultivation in the state while the expertise of national-level agencies will be utilized at a later stage. Minister said that the cultivation of Heeng, one of the most valuable commodities being traded in the country today has the potential to change the economic condition of people in the cold desert areas of the Himachal Pradesh. An MoU between CSIR-IHBT Palampur and Himachal's Agriculture Department was signed on June 6 last year for joint collaboration for the cultivation of one of the top condiments high-value spice crop in the state. A capacity-building programme was organized for officers of the agriculture department in July last year.

Published in:
[The Times of India](https://www.thehindu.com/news/national/himachal-pradesh/heeng-cultivation-in-himachal-pradesh/article17444444.html)

City of lakes? Delhi has to wait longer

CSIR-NEERI

24th January, 2021



Delhi government's effort to turn the capital into a city of lakes has been mired in delays. In a report submitted by the monitoring committee appointed by National Green Tribunal, Delhi Jal Board stated that 155 waterbodies were being revived as batches in different phases. The panel also reported that the irrigation and flood control department has simultaneously decided that it would only rejuvenate 10 of the 95 waterbodies it was supposed to restore, leaving the rest to DJB. The report also reviewed the progress and reasons for delay of lake and waterbody revival projects being undertaken by agencies like Delhi Development Authority, New Delhi Municipal Council and Archaeological

Survey of India. The 155 waterbodies to be revived by DJB have been divided into 14 groups, with the batch in the first phase expected to see completion by June. Another 42 ponds and lakes are to be rejuvenated by January 2022, while the deadline for the rest is December 2022. The frequently cited reasons for the delays include budgetary constraints due to the pandemic, Covid lockdown, model code of conduct for assembly elections and, in the cases of Tikri Kalan, Chhawla, Hiran kudna and Malikpur village, resistance of local resistance that has forced the district magistrates to resolve the matter. The revival exercise was started in September 2018 and was expected to cost Rs 376 crore. The monitoring panel reported that orders amounting to Rs 9 crore for Phase 1 had been issued. Work was at an advanced stage at Tughlaqabad, Rani Khara and Sanjay Van waterbody while DDA has refused to hand over the Neela Hauz site in place of which another site will be chosen. Similarly, under phase Neelam 2, six waterbodies are being revived and work progressed well in places

REVIVING THE ECOSYSTEM

DJB TO REVIVE 155 WATERBODIES | DIVIDED IN 14 GROUPS

COST | ₹ 376cr

STARTED IN | Sept 2018

PHASE 1 | 8 waterbodies, including Baoli at Tughlaqabad, Rani Khera, Sanjay Van; work started

Expected completion

30 Jun, 2021

PHASE 2 | 6 waterbodies; work in advanced stages in places like Ibrahimpur, Karala, Daulatpur

TARGET | 30 Jun, 2021

➤ Monitoring committee report says that DJB has assured work order issued in most cases from **Phase 1 to 8** (46 waterbodies) and work likely to be completed in **June 2021**



Targets

Waterbody 1 to 46 | **June 2021**

Waterbody 47 to 89 | **Jan 2022**

Waterbody 90 to 155 | **Dec 2022**

VARIOUS REASONS CITED BEHIND DELAY

- Code of conduct before elections
- Waterlogging during rains
- Lockdown period
- Ban on construction by Supreme Court during high-pollution period
- Hindrance by locals at some sites

- Budgetary constraints due to Covid
- CSIR | NEERI** providing consultancy DPRs issued in case of 81 of 83 waterbodies for DJB and 18 out of 29 waterbodies under I&FC
- I&FC | 95 waterbodies under Irrigation and flood control: July**

- 2020 decision on 10 will be taken and rest will be transferred to DJB
- ASI 12 waterbodies | NOC** provided by ASI, work at one site awarded and others in pipeline
- DDA has also missed deadline for several of its rejuvenation projects

like Ibrahimpur, Karala and Daulatpur where bio-management and sedimentation tanks have been built for treating water. Work orders have been issued in most cases from Phase 1 to 8 related to 46 waterbodies, and the projects could be finished by June 2021. Restoration of another 42 waterbodies are expected to be completed in a year's time and the remaining 65 sites in two years from now. Consultancy for a large number of these projects is being carried out by CSIR- NEERI, with detailed project reports issued for 81 of 83 water bodies for DJB and 18 of 29 water bodies under the irrigation department. In the latter's case, 95 waterbodies were expected to be revived after the successful pilot at Rajokri. However, in July 2020, it was decided that only 10 of these waterbodies would be rejuvenated by the agency, the rest transferred to DJB. In case of ASI's 12 waterbodies, the monitoring committee's report states that work at one site has started and the others are in the pipeline. The panel has criticised DDA for its lackadaisical approach to the exercise. "DDA has not devised any comprehensive plan with dedicated exclusive staff for the revival of the waterbodies. It has also not allocated an exclusive and adequate budget as has been done by DJB," states the report.

Professor C R Babu, head of the Centre for Environmental Management of Degraded Ecosystems (CEMDE) and member of the CPCB-appointed committee to revive waterbodies, said that a majority of the ponds in Delhi and across the country have been neglected, with sewage and silt accumulation leading to their demise. "The first step to revive any waterbody is to dredge up the silt and use it to create embankments," said Babu, who recently revived two waterbodies in DDA's South Delhi Biodiversity Park. "However, they cannot sustain this on rainwater alone. The ponds will dry up in the off season, and, therefore, connecting it to a sewage treatment plant is essential. Once full of water, the ponds can get phytoplanktons and plants that naturally filter the water and allow aquatic life to thrive."

Published in:

[The Times of India](#)

सीएसआईआर-सीएमआईआर ने किया 'एक्वा कायाकल्प संयंत्र' का अनावरण



दुर्गापुर. अपशिष्ट जल और सिंचाई अनुप्रयोगों के उपचार के लिए, सीएसआईआर-सीएमआईआर ने निदेशक, हरीश हिरानी ने प्रो. सुरेन्दु बसु, अतिरिक्त जिला मजिस्ट्रेट (जिला परिषद), पश्चिम बर्दवान और अतिरिक्त कार्यकारी अधिकारी, पश्चिम बर्दवान जिला परिषद की उपस्थिति में 'एक्वा कायाकल्प संयंत्र' का उद्घाटन किया। एक्वा कायाकल्प प्लांट (एआरपी) एक एकीकृत अपशिष्ट जल कायाकल्प मॉडल है, जिसमें विभिन्न शुद्धि मापदंडों के आधार पर अपशिष्ट जल के व्यापक उपचार के लिए सिक्स-स्टेज शुद्धि प्रोफाइल है। एआरपी का उपयोग करके लगभग 24,000 लीटर पानी का कायाकल्प किया जा सकता है जो 4 एकड़ कृषि भूमि (पानी की आवश्यकताओं में मौसमी विविधताओं को छोड़कर) के लिए पर्याप्त होगा। प्रो. हरीश हिरानी ने कहा कि यह देखा गया कि अधिकांश पुराने ड्रेनेज सिस्टम चोक हो गए हैं और ड्रेन सर्फेस में दार जैसे इम्पूव सैनिटेशन इन्फ्रास्ट्रक्चर हैं। यह जल सीवेज इन दरारों के माध्यम से नीचे गिरता है और मिट्टी और भूजल को दूषित करता है।

एक्वा कायाकल्प प्लांट (एआरपी) का इस दिन अनावरण किया गया है, इसके स्केल-अप संस्करण में 40,000 लीटर / दिन के उपचार की अधिकतम क्षमता है। सीएसआईआर-सीएमआईआर पहले से ही एक मॉडल है जीरो सॉलिड वेस्ट इकोलॉजी और इस तकनीक के अनावरण के साथ हम अनायास ही एक जीरो लिक्विड डिस्चार्ज इकोलॉजी की ओर पहुंच जाएंगे। तकनीक पहले से ही आईपी संरक्षित है। एआरपी से संशोधित पानी का उपयोग कृषि उपयोग के लिए बेहतर है और विस्तारित समय के साथ इसका उपयोग पीने के प्रयोजनों के लिए किया जा सकता है। इस उपचारित जल के उपयोग से निर्मित होनेवाली कृषि जेब कार्बन डाइऑक्साइड को ठीक करने में मदद करेगी और निवासियों को खाद्य सुरक्षा भी प्रदान करेगी।

शुभेन्दु बसु ने कहा कि सीएसआईआर-सीएमआईआर क्षेत्र और देश का गौरव है। हाल के वर्षों में सीएसआईआर-सीएमआईआर की गतिविधियों की जबरदस्त दृश्यता हुई है। प्रो. हिरानी के नेतृत्व ने कई सामाजिक प्रौद्योगिकियों के विकास के माध्यम से फल उठाया है, जो राष्ट्र को बहुत लाभ पहुंचा रहा है।

ড্রেনের জল পরিশোধন করে পানীয় ও সেচের কাজে ব্যবহার, নতুন টেকনোলজি সিএমইআরআইয়ের

নিজস্ব প্রতিনিধি, দুর্গাপুর: ড্রেনের জলই এবার নিরাপদে ব্যবহার করা যাবে কৃষিকাজে। এমনকী, পানীয় হিসেবে ব্যবহার করাও নিরাপদ। নতুন টেকনোলজি প্রস্তুত করল দুর্গাপুরের সিএমইআরআই। অ্যাকোয়া রিজুভেনেশন প্ল্যান্ট নামে এই প্রযুক্তির উদ্বোধন হল শনিবার। সংস্থার নিজস্ব কলোনিতে এর উদ্বোধন করেন পশ্চিম বর্ধমানের অতিরিক্ত জেলাশাসক শুভেন্দু বসু। সংস্থা সূত্রে জানা গিয়েছে, তাদের তৈরি এই প্ল্যান্ট দিনে ২৪ হাজার থেকে ৪০ হাজার লিটার ড্রেনের জল চাষবাসের উপযুক্ত করে তুলবে। ২৪ হাজার লিটার এই ধরনের জল থেকেই চার একর জমিতে সেচ দেওয়া সম্ভব। মাত্র সাড়ে ছ'লক্ষ টাকা খরচ করলেই এই প্ল্যান্ট বসানো সম্ভব। অতিরিক্ত জেলাশাসক বলেন, আমাদের মতো জেলায় এই প্রজেক্ট নেওয়া যেতেই পারে। এতে যথেষ্ট লাভ হবে।

ড্রেনের জল বহু প্রশাসনেরই সমস্যার কারণ। ড্রেনের জল নদীতে ফেলা নিয়ে জাতীয় পরিবেশ আদালতে একাধিক মামলা হয়েছে। আবার অনেকক্ষেত্রে ড্রেনের জল কৃষিজমিতে ঢুকে যায়। অনেক চাষি বাধ্য হয়ে ড্রেনের জলই কৃষিকাজে ব্যবহার করেন। এরপরেই এই প্রযুক্তি কাজে লাগানো হয় সিএমইআরআই কলোনিতে। যার এদিন আনুষ্ঠানিক উদ্বোধন হল। এই সিস্টেমে দেখানো হয়েছে, প্রথমে ড্রেনের জল পাম্পের সাহায্যে অ্যাকোয়া রিজুভেনেশন ফর ইরিগেশন ইউনিটে তোলা হচ্ছে। সেখানে থেকে মেকানিক্যাল সেপারেশন ইউনিটে আসছে। পাঁচটি চেম্বারের মধ্যে দিয়ে সেখানে ড্রেনের জলকে নিয়ে যাওয়া হচ্ছে। এই দুটি জায়গা থেকেই ড্রেনের জলে থাকা বড় আকারের দূষিত কণা জল থেকে পৃথক করা হচ্ছে। তা মাটির গভীরে ঢুকিয়ে দেওয়া হচ্ছে, যাতে সেখান থেকে সার হয়। এরপর প্রাইমারি সেটেলিং চেম্বার, সেকেন্ডারি ট্রিটমেন্ট ইউনিট হয়ে একটি রিজার্ভারে নিয়ে যাওয়া হচ্ছে। সেখান থেকে তা ফাইনাল সেটেলিং চেম্বার হয়ে ব্যবহারের জন্য দেওয়া হচ্ছে।

সংস্থার অধিকর্তা হরিশ হিরানির দাবি, ড্রেনের জলের থাকা ভাইরাস, ব্যাকটেরিয়ার জেরে ক্ষতি হতে পারে। তাই আমাদের এই ভাবনা।

CSIR-CMERI unveils 'Aqua Rejuvenation Plant' which facilitates an Organic Farming Model through treated Waste Water

CSIR-CMERI

23rd January, 2021



CSIR-Central Mechanical Engineering Research Institute, Durgapur unveiled the first-ever Waste Water Treatment Technology Model which purifies Waste Water for Irrigation/Farming purposes. Prof. (Dr.) Harish Hirani, Director, CSIR-CMERI inaugurated the 'Aqua Rejuv' along with Shri Subhendu Basu, Additional District Magistrate (Zila Parishad), Paschim Bardhaman and Additional Executive Officer, Paschim Bardhaman Zila Parishad today at CSIR-CMERI colony in Durgapur (West Bengal). During his inaugural speech Prof. Hirani said that he wanted the solution for the society from Carbon Dioxide, frequent chockage of the drainage system and the discharge of sewage water

through application of basic sciences. He also referred to different studies where it has been outlined that the COVID virus have the potential to survive up to 34 days in the sewage water. Keeping in mind these societal aspects, he envisioned this technology following the norms of the National Green Tribunal which is the statutory body for handling the expeditious disposal of the cases pertaining to environmental issues in our country. Aqua Rejuvenation Plant (ARP) is an Integrated Waste Water Rejuvenation Model which has Six-Stage purification profile for comprehensive treatment of Waste Water, based upon diverse purification parameters. The approx. 24,000 litres of Water that can be rejuvenated using ARP will be sufficient for almost 4 acres of Agricultural Land (barring seasonal variations in water requirements). The used filtration media have been specially developed to handle Indian Sewage Water Parameters and based upon Geographical Variations they may be modified. The filter media is also locally source-able, so

as to ensure that there would not be any stress in the Supply Chain for scaled-up Manufacturing of ARP. The treated water which is now being used for irrigation can be used even for drinking purpose also when little more time is given for settling. The system has dual benefit as while the treated water is being used for irrigation purpose, the filtered sludge generated is also utilized as manure / fertilizer. The bio char prepared from dry leaves falling in autumn season is also used for mixing in soil as it reduces the water requirement for irrigation thus saving precious water. The Institute was earlier also using alternate technologies like sprinkle system and others for reduced water requirement for such purpose. Prof. Hirani urged the different stake holders of the Society, Civic bodies, Governmental authorities, NGOs to come forward and work with the scientific community.

Shri Subhendu Basu appreciated the scientific efforts of the Institute and stated that this technology is a much needed one in the present environment. He said that shortly the Municipal Corporation, Irrigation Department and the District Administration would arrange a seminar with CSIR-CMERI to discuss the issue for its proper implementation at the required places. Shri Basu expressed confidence that CSIR-CMERI has the potential and R&D solutions to the Industrial pollution related issues including waste water management.

Published in:

[India Education Diary](#)

NEERI to examine Mangaluru smart city projects for adherence to pollution norms

CSIR-NEERI

22nd January, 2021

The Mangaluru Smart City Ltd. (MSCL), a special purpose vehicle created by the State government to implement smart city projects in Mangaluru city, has agreed to appoint CSIR-National Environmental Engineering Research Institute (NEERI) to examine all projects are taken up in compliance with the Construction and Demolition Waste Management Rules, 2016.

The MSCL, which has stopped constructions works after being pulled up by the Karnataka High Court for carrying on the works without adhering to the C&DWM Rules, on Thursday agreed to the court's suggestion to entrust the task of adhering to the rules to NEERI.

Following this undertaking given on behalf of MSCL, a Division Bench comprising Chief Justice Abhay Shreeniwas Oka and Justice Sachin Shankar Magadum adjourned till January 28 further hearing on a PIL petition filed by Karnataka State Legal Services Authority on failure of the Mangalore City Corporation (MCC) to implement the Solid Waste Management Rules, 2016.

Meanwhile, the Bench directed the MCC Commissioner to release ad hoc compensation to eligible persons who lost property and land due to sliding of municipal solid waste staked at Pachchanady landfill in August 2019.

As the court during earlier hearing questioned how an officer can head both the MCC and MSCL as it would result in conflict of interest, the government on Thursday indicated to the court that an officer would be appointed to the post of Managing Director of MSCL.

Published in:
[The Hindu](https://www.thehindu.com)

NML installs 493 kWp capacity Solar Power Plant

CSIR-NML

21st January, 2021

SC Mande, secretary, Department of Scientific and Industrial Research (DSIR) and director general of CSIR, inaugurated the Rooftop Solar Power System at the National Metallurgical Laboratory (NML) premises. As part of the initiative to strengthen the renewable energy sector, CSIR-NML has installed the 493kWp capacity On-Grid roof top solar power plant upon various building roofs in Jamshedpur office. This power project aimed at catering the internal power utility needs of CSIR- NML, who is actively involved in R&D activities through pyro-metallurgy route along with processing of various material and metallurgical operations.

In the recent publication on ‘CSIR Technologies for COVID-19 Mitigation’, the secretary said : “CSIR, through its 38 laboratories and expertise in diverse areas ranging from aerospace to buildings to genomics to chemicals, quickly sprang into action developing COVID-19 interventions. For effective planning and strategizing, CSIR swiftly set up five COVID-19 verticals including disease surveillance, drugs & vaccines, testing & diagnostics, PPEs and supply chain management.” Mande met young scientists of NML to understand and discuss NML’s initiatives for self-reliant India.

For the past few years NML has been working on various collaborative projects with Tata Steel, RDCIS (Ranchi) and other organizations in the areas of mineral beneficiation and development of special steels for automobile and rail industry. Extensive research work is going on at NML and technology transfer has taken place for making India self-reliant in lithium ion battery manufacturing. India occupies 5th position in terms of rare earth reserves. So, extraction of rare earths especially from secondary resources like industrial waste has a good potential to make India self-reliant. NML’s on-going research in these areas was demonstrated through a presentation by a few young scientists of NML which

drew appreciation from DG, CSIR and his team. Udaya Bhaskara Rao, Sr. Scientist, NML looked after a plant project activity that this plant would be capable of generating an average of 1400kWh units on a daily basis and can be charged throughout the year with an expected lifetime of 25 years. Being an on-grid roof top solar power plant in nature, requirement of batteries for energy storage is excluded and this plant can be hooked up to charge the local utility grid during the lean demand load period from consumers.

Mande also visited the Urban Recycling Centre of CSIR-NML which was inaugurated by him earlier as a centre of excellence in the area of e-waste recycling.

Published in:
[The Pioneer](#)

CSIR-CFTRI opens capacity bldg training programme sponsored by SC-ST Hub

CSIR-CFTRI

21st January, 2021

Council of Scientific and Industrial Research(CSIR) -Central Food Technological Research Institute (CFTRI),Mysuru inaugurated a series of capacity building training programmes in food processing for SC-ST aspiring and existing entrepreneurs, sponsored by National SC-ST Hub (NSSH), Ministry of MSME. The training programme covers five major areas of food processing such as Nutri-cereal processes and products; traditional sugar confectionery and sensory science concepts for product development; entrepreneurship development program on the processing of spices, coffee and tea; wheat milling and baking technology; and fruit and vegetable technologies for value addition.

Dr Ajay W Tumaney, Coordinator, STC programmes and principal scientist, Lipid Science department, briefed the audience about the capacity building programmes undertaken by CFTRI,in her inaugural address. A. Kokila, Head of National SC-ST Hub, Bengaluru, was the chief guest, and Megha, Assistant Director, department of Social Welfare, Mysuru, was the guest of honour. Dr Sridevi A. Singh, Director, CSIR-CFTRI, presided over the function.

NSSH is supporting the SC-ST entrepreneurs in providing training, loans, and marketing of the products with an aim to reach the 4 per cent procurement quota allocated to SC-ST entrepreneurs at the national level, and NSSH is also providing training in tendering and e-tendering processes to them.

She has also informed the participants of the training programmes that 100 per cent subsidy is being provided by the Karnataka state government for SC-ST entrepreneurs who take training and technology transfer from CSIR-CFTRI. “The participants need to be innovative in their products to stand-up in the market. They need to take this training programme seriously and gain knowledge to enable them to start their own business,” said Megha.

In her presidential remarks, Dr Sridevi A Singh, director CSIR-CFTRI informed the participants that CSIR-CFTRI has more than 300 ready technologies available with it for technology transfer and extended handholding support of the institute to the participants of the training programme. Dr A Jayadeep, head, Grain Science Technology, briefed about the course on Nutri-cereal processes and products covering maize and pseudo millets, and wrapped up the session, and proposed the vote of thanks. Dr Poornima Priyadarshini, Scientist, Molecular Nutrition department, compared the programme.

Published in:
[FNB News](#)

Aordable Flow Diverter Stent Developed for Aneurysm

CSIR-NAL

21 January, 2021



In a boon to aneurysm patients at the risk of stroke in the brain, Sree Chitra Tirunal Institute for Medical Sciences and Technology (SCTIMST), Thiruvananthapuram, and National Aerospace Laboratories of CSIR (CSIR-NAL) have developed an indigenous flow diverter stent that is easily affordable than the imported ones. The braided design of kink-resistant stent, made of superelastic Nickel-Titanium alloy, can withstand twists and turns of complex artery system without losing grip or shape. The metal mesh is radio-opaque which means better visibility for accurate placing of the stent in the blood vessel.

It works on the principle of lowering the blood pressure in the aneurysm by diverting the flow of blood supply away from the weak artery wall which could rupture and cause stroke, leading to coma, disability or death within 24 hours. This stent has an advantage over the coil or glue system as the diversion of blood pressure allows a weak artery wall to heal itself, which is not possible while remaining under constant pressure. Open skull surgery to cut off the dangerous flow is the last resort. Imported stent costs anywhere between Rs 7 to 8 lakhs and the home-grown version will be cheaper, though no price has been announced officially, yet. Arbitrary pricing of stents has been curbed by the government by bringing these under National List of Essential Medicines in 2017. National Pharmaceutical Pricing Authority (NPPA) has capped the price of a bare-metal stent at Rs 7260 and drug-eluting stent at Rs 29600. Exorbitant costs of imported stents have often spelt whopping profits to suppliers' cartel and financial ruin to the families of needy patients. The indigenous stent was developed in March last year.

After successful animal and human trials, it is up for bulk production as the institute has entered into a technology transfer agreement with Pune based manufacturer Biorad Medisys. A patent is also underway. An estimated 11 persons per one lakh population get aneurysm in India every year, accounting for some 1,40,000 cases a year. Stroke kills 40 percent of patients and leaves survivors severely debilitated and paralyzed. (India Science Wire)

Published in:
[EET India](#)

डॉ. प्रांतिक मंडल को एनएसआई फेलोशिप



हैदराबाद (शुभ लाभ ब्यूरो)।

सीएसआईआर-एनजीआरआई के डॉ. प्रांतिक मंडल को 2020 में नेशनल एकेडमी ऑफ साइंसेज, इंडिया (एनएसआई) की फेलोशिप के लिए चुना गया है। यहाँ जारी प्रेस विज्ञप्ति के अनुसार, एनएसआई की स्थापना 1930 में की गयी जो देश की सबसे पुरानी विज्ञान अकादमी है। डॉ. प्रांतिक मंडल को उनके भूकंप विज्ञान के क्षेत्र में उनके महत्वपूर्ण अनुसंधान योगदान तथा गुजरात के कच्छ क्षेत्र में निरंतर भूकंपीयता के लिए एक

राखंड हिमालय और कोयना (महाराष्ट्र) क्षेत्रों में भूकंप उत्पन्न करने वाले तत्वों पर किये गये शोध कर संतोषजनक स्पष्टीकरण प्रदान करने का कार्य किया है। डॉ. मंडल के राष्ट्रीय और अंतर्राष्ट्रीय पत्रिकाओं में 109 शोध पत्र प्रकाशित हो चुके हैं और पीएचडी के लिए 4 छात्रों का मार्गदर्शन किया है। उन्होंने 2007 में राष्ट्रीय खनिज पुरस्कार और 2000 में सीएसआईआर युवा वैज्ञानिक का अवार्ड प्राप्त किया है। इसके अतिरिक्त फेलोशिप (2004 में पृथ्वी-विज्ञान में), वैज्ञानिकों के लिए आईएनएसए-जेएसपीएस फेलोशिप (2010 में पृथ्वी-विज्ञान में) और वरिष्ठ वैज्ञानिकों के लिए डीएसटी-डीएडी फेलोशिप (2011 में पृथ्वी-विज्ञान में) से सम्मानित किया गया है। डॉ.

Published in:
Shubh Labh

CSIR-NGRI

21st January, 2021

ఎన్జీఆర్ఐ శాస్త్రవేత్తకు 'నాసి' ఫెలో

ఉప్పల్: నేషనల్ అకాడమీ ఆఫ్ సైన్సెస్ (నాసి) ఫెలోగా ఉప్పల్ ఎన్జీఆర్ఐకి చెందిన శాస్త్రవేత్త డాక్టర్ ప్రంతిక్ మండల్ ఎంపికై నట్లు సోమవారం ఎన్జీఆర్ఐ విడుదల చేసిన ఓ ప్రకటనలో తెలిపింది. జాతీయ అంతర్జాతీయ స్థాయిలో ఆయన చేసిన పరిశోధనలకు గుర్తిస్తూ ఈ అవకాశం కల్పిస్తున్నట్లు తెలిపింది.



డాక్టర్ ప్రంతిక్
మండల్

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