

CSIR IN MEDIA



CSIR

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Second Pune firm gets approval to make Covid-19 test kits

CSIR –CCMB

5th September, 2020



Yet another Pune-based company has received approvals to make RT-PCR kits. After MyLabs' -- Patholab, GenePath Diagnostics' has indigenously developed Covid-19 RT-PCR test kit -- Covidex One and received approval for manufacture and sale in India from the Central Drugs Standard Control Organization (CDSCO) on August 31, 2020. "The kit was validated by the Council of Scientific and Industrial Research's Center for Cellular and Molecular Biology (CSIR-CCMB) in Hyderabad and approved by the Indian Council for Medical Research (ICMR) earlier in the year. The CDSCO has given approval to Bengaluru based Achira Labs,

GenePath's manufacturing partner, to manufacture the kit," the company said. GenePath said while it has designed and developed the kit, it has contracted with Achira to manufacture the kits on its behalf. The company said that it has been able to keep the cost low at Rs 1, 500 per test, even lower than the cap fixed by the government owing to the use of over 99% of local content. "Only the probes and primers we use come from a partner laboratory in Florida with whom we have been closely associated for several years now," the company said. While more players are coming up with RT-PCR kits, the domestic demand for the same is quite less despite increased clamor for testing. In a conference recently, Serum Institute of India's CEO, Adar Poonawalla said that the government must not only allow for more tests but also allow local manufacturers to export kits in the spirit of make local, go global. Poonawalla has invested over Rs 100 crore in Mylabs. Genepath, which has also invested Rs 50 crore in the effort said even it has global aspirations. "We are building a portfolio of high quality molecular diagnostic and genomic testing kits,

panels and platforms in the areas of infectious diseases, oncology and inherited genetic disorders. Our decision to enter this space is part of a larger global strategy in the areas that we operate. We have parallel manufacturing capacity in the United States and are preparing the same in Europe, so we will have the ability to reach a wider global market," Genepath said.

"In addition to being a kit manufacturer, we also run a clinical lab that has processed more than 20,000 Covid-19 tests for patients in Pune," said Nickhil Jakatdar, CEO, GenePath Diagnostics.

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[The Times of India](https://www.timesofindia.com)

नीरी ने किया ऑनलाइन कार्यक्रम

‘जिज्ञासा’ ने विद्यार्थियों को दिया ऑनलाइन प्लेटफॉर्म

भास्कर संवाददाता | नागपुर

एक्टिविटी बेस्ड लर्निंग के माध्यम से विद्यार्थियों में वैज्ञानिक सोच को बढ़ावा देने के उद्देश्य से सीएसआईआर-नीरी में ‘जिज्ञासा’ स्टूडेंट-साइंटिस्ट कनेक्ट प्रोग्राम का आयोजन ऑनलाइन किया गया। सेंटर फॉर क्रिएटिव लर्निंग आईआईटी गांधीनगर के प्रमुख प्रो. मनीष जैन कार्यक्रम में रिसोर्स पर्सन के रूप में उपस्थित थे। नीरी के निदेशक डॉ. राकेश कुमार ने विद्यार्थियों और शिक्षकों का मार्गदर्शन किया। कार्यक्रम का विषय गणित और विज्ञान के मूल प्रत्यात्मक ज्ञान और विवेचनात्मक सोच पर केन्द्रित था। प्रो. जैन ने

विभिन्न वैज्ञानिक सिद्धांतों का वर्णन किया। उन्होंने स्ट्रों से बनी बांसुरी और पारंपरिक चरखे से विद्यार्थियों को विज्ञान की ओर आकर्षित किया। **विज्ञान उन्नति के लिए हो**

डॉ. राकेश ने विद्यार्थियों का मार्गदर्शन करते हुए बताया कि विज्ञान का इस्तेमाल समाज और पर्यावरण की उन्नति के लिए किया जाना चाहिए। कार्यक्रम में जम्मू-कश्मीर सहित देश के विभिन्न राज्यों के विद्यार्थियों और शिक्षकों ने हिस्सा लिया। कार्यक्रम का समन्वय नीरी के वरिष्ठ प्रधान वैज्ञानिक प्रकाश कुंभारे ने किया। वरिष्ठ वैज्ञानिक नीरी आशीष शर्मा ने प्रोग्राम का ऑनलाइन प्रसारण किया।

CSIR-CMERI develops battery-operated spray systems for marginal and small farmers

CSIR-CMERI

4th September, 2020



Water is a precious resource and water scarcity is looming large over the entire Nation. Agriculture, which consumes around 70% of Water, for irrigation purpose, is the most vulnerable sector of the Economy owing to this crisis. To address this issue there has been discussion on implementing solar pump in almost every farmland. Apart from solar pumps, CSIR-CMERI is working on methods to reduce water consumption required for irrigation. Initially, Drip irrigation was considered but later it was realised that Drip irrigation is not affordable for marginal to small farmers, who are the major stakeholders in Indian Agrarian scenario.

Those farmers use manual sprayers costing a few thousand rupees. As per the available knowledge, pesticides play a very big role in increasing crop productivity, but a large amount of pesticide sprays is wasted due to lack of appropriate machinery, and soil, water and air become polluted. Due to such harmful effects of pesticides, there is an increasing pressure to reduce their use and make their spraying more efficient. To make efficient sprayer, there is a need to understand the science of surface tension, viscosity, wettability, air drag, dynamic pressure, particle size, etc. CSIR-CMERI developed two variants of battery-operated spray systems one for "marginal famers" and others for "small farmers". Backpack Sprayer, having a capacity of 5 litres, is made for "marginal farmers", while the Compact Trolley Sprayer having a capacity of 10 litres, is made for "small farmers". These sprayers are equipped with two separate tanks, flow control and pressure regulator to handle different water requirements of the crops, target/site-specific irrigation, maintaining appropriate dilution of

pesticide/fungicide to control the pest (on foliage, under the leaves, at root zone etc.), creating water-based micro-roughness of leaf surface, maintaining soil moisture levels in a narrow range, and weed control. The systems function on Solar-Powered batteries, thus enabling its usage even in energy and power deprived agricultural regions of the Nation, thus reducing dependence on price volatile fossil fuels. The sprayers are simple to develop, easy to learn and implement, therefore will help to overcome the water crisis faced by Indian farmers. The flow control feature of the Sprayers helps achieve multiple levels of Water/Pesticide flow thereby enhancing the flexibility and dynamicity of the coverage area as well as the intensity of the application. The Dual-Chamber design of the Sprayers helps achieve a degree of resource versatility as it allows the system to carry two variants of liquids at any particular instant. As per experiments conducted at CSIR-CMERI, the engaged farmers have informed that it helps save 75% of Water and 25% time-consumption while using the CSIR-CMERI developed sprayers. This design element might also help reduce the time consumption for Spray based Agricultural applications, as the farmer need not empty the contents of a single vessel completely before using different content.

Prof. (Dr.) Harish Hirani, Director, CSIR-CMERI, elaborated, "These couple of variants can bring about a revolution in the sphere of Precision Agriculture by reducing the usage of Water in Agriculture. This revolutionary technology will help in creating agricultural avenues even in arid and semi-arid regions, as the Water scarcity will no longer be feared by the farming community. The CSIR-CMERI developed sprayers provide a cost-effective socio-economic solution for both marginalised and small-scale farmers. The affordable pricing profile helps to provide opportunities to cottage and micro-industries in furthering the outreach factor of the technology widely." CSIR-CMERI has already developed solar tree of capacity 1 Kwp, 3 kwp, 5 kwp, 6 kwp, 7.5 kwp and 11.5 kwp,(which is now the Largest Solar Tree in the world).

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[Devdiscourse](#)

CFTRI signs MoU with IITs- Tirupathi and Guwahati

CSIR –CFTRI

4th September, 2020

Central Food Technology Research Institute (CFTRI) signed an MoU with IIT-Tirupathi, a third generation IITs established in the year 2015 in a virtual meet. The collaborations is intended to undertake joint projects in the advanced areas of food processing, exchange of faculty and mentoring of students from both the Institutions, a statement issued here on Friday said. Speaking on the occasion, Dr KSMS Raghavarao, Director, CSIR-CFTRI expressed that synergy between both the Institutions would help startups and domestic Industry to adopt innovative processing for increased value addition to locally grown agri-commodities. Further, One of the genuine requirement felt in the Industry is the demand for increased automation in traditional food manufacturing. With the huge expertise on automation available with IIT faculty, the pact would be an important step in meeting the Import substitution of food processing machineries under the Aatma Nirbhar Scheme of the Govt as well. Prof Sathyanarayana, Director, IITT stated that Food Technology and Precision Agriculture are the major thrust areas of the Institute in the national scenario. Andhra Pradesh being the rice bowl of the country, along with flourishing Aquaculture, mango pulp production in Chittor, Tomato in Madanapally etc., the potential for innovation in this sector is immense. Institute also signed an MoU with IIT-Guwahati towards forging collaborations in the areas of bio processing, Polymers, fermentation and bio-engineering R&D in the country. The partnership would be helpful for formulating Twinning Projects under various schemes of Department of Biotechnology for the development of North East Region. In the Virtual function along with Director, CFTRI and Prof. T.G. Sitharam, Director, IIT-Guwahati and other faculty Members were present.

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[United News of India](http://www.uninews.com)

Hyderabad's CCMB expects therapeutic antibody treatment to be more effective than COVID-19 plasma therapy

CSIR-CCMB



The Hyderabad-based CSIR- Centre for Cellular and Molecular Biology (CCMB) has collaborated with the Hyderabad Central University and Vins Bioproducts Ltd to develop fragment-based therapeutic antibody treatment for immediate coronavirus treatment. According to researchers, therapeutic antibody treatment is more effective and feasible than plasma therapy. Scientist believes that plasma-based passive immunity against Covid-19 has several theoretical and practical concerns including limitation in the availability of human plasma samples. Therefore, they are exploring alternative strategies of using horses or other higher animals to generate antibodies against the

3rd September, 2020

SARS-COV₂ viral antigens. The antibodies, raised in horses using inactivated coronavirus, are fractionated and purified to produce antibody fragments F(ab')₂ for neutralizing coronavirus in the patients for recovery. The technology is already providing neutralizing antibodies from horses as anti-venoms, anti-toxins and anti-virals.

NATURE OF CORONAVIRUS

In an exclusively to India Today TV, CCMB Director Dr Rakesh Mishra made an interesting revelation of the current nature of the virus in 10 countries.

He said that in the bringing of coronavirus-type, A3i was most prevalent in the country which was believed to travel from South East Asian Country.

"The virus which is thought to be weaker in nature had 41 per cent presence in India, but now CCMB scientist have found A2A virus rampant in the country, which is believed to enter India from Europe," Dr Mishra said.

"DEVELOPED CORONAVIRUS IN LAB FOR RESEARCH"

Dr Mishra, who is one the finest mind working on Covid-19 spoliation, said that the CCMB has, in fact, developed a large number of coronavirus in its lab and is conducting research. "We have given the virus to several companies for a drug test. We have also collaborated with Vins after our certain test was a success. We are going for clinical trials soon. I see therapeutic antibody treatment more effective than plasma treatment," said Dr Mishra.

NOT PEAK YET

Dr Rakesh Mishra said that the coronavirus peak has not yet arrived in India. "The virus is kind. 70-80 per cent affected are not aware about the infection. Only a small percentage of people are unfortunate ones who could not survive. Here, my only emphasis is to avoid unnecessary crowding, wear masks and follow social distancing," said Dr Rakesh Mishra. He said: "Our health Infrastructure is now well prepared", but he also predicted that the pandemic might end by next year if people of the country behave responsibly. "Currently, we are entering into 2021 with the virus," said Dr Mishra. He also said that the imposition of lockdown is "not at all a solution" because it will have a more adverse effect on the Indian economy.

"PEOPLE SHOULD BEHAVE RESPONSIBLY"

Dr Mishra further said that cases are seen rising in the country because state governments are testing since "there is are drugs as of now" and therefore, "it's the population which need to behave responsibly". Dr Mishra also asked people to behave responsibly to avoid an entirely terrible situation. "We are a dense country. People need to take the matter in their hands. Avoid mass gathering, processions, celebrations, marriage-birthday and other parties. This can only bring down the number of cases," Dr Rakesh Mishra said.

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[India Today](https://www.indiatoday.com)

Andhra Pradesh signs MoU with CSIR for a bulk drug pharma park in the state

CSIR –IICT

3rd September, 2020

Andhra Pradesh Industrial Infrastructure Corporation Ltd (APIIC) on Wednesday signed an MoU with CSIR-IICT, a premier R & D institute in the country to set up a bulk drug pharma park in the state with the Centre's support.

While industries minister Mekapati Gautham Reddy attended the MoU signing session via virtual mode from Nellore, senior officials from both the sides exchanged documents at the APIIC headquarters in Mangalagiri.

“CSIR has been established to carry out research in chemical sciences leading to innovative processes for a variety of products necessary for human welfare such as food, health, energy and environment and the conduct of R&D work. Partnering with such an institute will surely help the state get big ticket investments in the sector as CSIR is fully geared to meet the requirements of technology development, transfer and commercialization,” said Mekapati.

Special chief secretary (industries) Karikal Valaven said that AP is heading to become the leader of the bulk drug market in the country.

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Nyooz

भारतीय वैज्ञानिकों का कमाल, बनाया दुनिया का सबसे बड़ा सोलर ट्री, किसानों को मिलेगा बड़ा फायदा

CSIR-CMERI



2nd September, 2020
रेजिडेंसियल कॉम्प्लेक्स में लगाया गया है। CSIR-CMERI के डायरेक्टर डॉ. हरीश हीरानंदानी के मुताबिक इस सोलर ट्री से 11.5 किलो वाट की अधिकतम एनर्जी पैदा होगी। मतलब सालाना स्तर पर एक सोलर ट्री से 12,000 से 14,000 के बीच स्वच्छ ऊर्जा जनरेट होगी। एक सोलर ट्री में अधिकतम 35 सोलर फोटोवोल्टिक पैनल लगाए गए हैं। इसमें से प्रत्येक 330 वाट पावर की ऊर्जा जनरेट करता है।

भारत के सामने अपनी बढ़ती ऊर्जा जरूरतों को पूरा करने की बड़ी चुनौती है। हालांकि इसके आड़े प्रदूषण बड़ा मुद्दा बनकर उभरता रहा है, जिससे पार पाने के लिए भारत की तरफ से लगातार कोशिश की जाती रही है। इसी के तहत भारत सोलर ऊर्जा को अहमियत देता रहा है। साथ ही इस मामले में भारतीय वैज्ञानिकों का बड़ा सहयोग मिला है।

बनाया दुनिया का सबसे बड़ा सोलर ट्री

डीडी न्यूज के मुताबिक सोलर ऊर्जा के क्षेत्र में भारतीय सेंट्रल मैकेनिकल इंजीनियरिंग रिसर्च इंस्टीट्यूट (CSIR) के वैज्ञानिकों को बड़ी कामयाबी मिली है। भारतीय वैज्ञानिकों ने दुनिया का सबसे बड़ा सोलर ट्री बनाया है। इसे पश्चिम बंगाल के दुर्गापुर की

Published in:
[Dainik Jagran](http://DainikJagran.com)

In Bengal, CSIR-CMERI scientists set up world's largest 'solar tree'

CSIR-CMERI

1st September, 2020



Scientists at the Central Mechanical Engineering Research Institute (CMERI) in West Bengal have installed a 'solar tree' that is likely to be the largest of its kind in the world. "This is the largest solar tree as per our knowledge producing up to 11,500 watts (11.5kw). The second largest tree has been set up in London and produces around 8.6kw," said Harish Hirani, director of CMERI, the country's apex research and development institute for mechanical engineering under the Council of Scientific and Industrial Research (CSIR). A solar tree is a metal structure resembling a tree that has solar panels fitted on the branches. The solar panels connected through metal branches produces solar power.

The CMERI solar tree has 35 panels each with a capacity of 330 watts. "Producing around 12,000–14,000 units of clean and green power in a year, the solar tree has the potential to save 10–12 tons of CO₂ from being released into the atmosphere every year," he said. One of the main hurdles while setting up solar panels on a large scale and for producing huge amount of renewable energy is availability of land. The inclination of the tree arms (tree branches) holding the panels can be adjusted to get the maximum output, a feature which is not available in roof top panels. The CMERI developed solar tree costs around Rs 7.5 lakh.

"Solar trees because of their design use less space and hence can produce more power per unit area. But one of the major hurdles of solar tree is its capital investment. This pushes up the cost of one unit of electricity produced. The cost is almost double than that of solar roof top panels which takes around Rs 3.5 to produce one unit," said SP Gon Choudhury, renewable energy expert and a Green Oscar awardee. The scientists at CMERI said that as the shadow area is minimum in solar trees they

could be set up in agricultural farms to run pumps, e-tractors and tillers as an alternative to diesel. The excess power can be sent to the grid providing economic return to farmers.

“This solar tree is a quantum leap towards making an energy reliant and carbon negative India,” said Hirani.

Published in:

[Hindustan Times](#)

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