

CSIR IN MEDIA



CSIR

NEWS BULLETIN 21 TO 25 DECEMBER 2020



India International Science Festival 2020 Witnesses Innovative Interventions to Contribute Towards the Building of a Self-reliant India

CSIR-NGRI

25th December, 2020



Honble Prime Minister Shri Narendra Modi inaugurated the 6th edition of India International Science Festival 2020 (IISF 2020) on 22nd December 2020. The theme of the event is Science for Self-Reliant India and Global Welfare. The objective of the event was to provide a platform to participants to contribute towards nation-building by coming up with novel solutions to societal problems, that would, in turn, result in reciprocation of knowledge & emergence of ideas for the national interest. The identified Plenary Sessions “Igniting Young Minds for Solution centric STI Interventions”. The India International Science Festival (IISF) will provide the spark of innovativeness and a strong

belief in science and scientists among the countrys citizens that will catapult the country into becoming a world leader. As a part of the IISF 2020, a special event titled “New Age Technology Show” is being organized by Software Technology Parks of India (STPI). The event shall witness various sessions spread across three days, and aims to encourage innovation in the field of emerging technologies such as AI-ML & Data Analytics, AR/VR/MR/XR and many others, cutting edge technologies like IoT, Electronic system Design & Manufacturing (ESDM), Blockchain, 5G, Cyber Security, etc. across the country for making India a Product Nation. India International Science Festival 2020 Witnesses Innovative Interventions to Contribute Towards the Building of a Self-reliant India Kickstarting the New Age Technology Show inaugural session, Dr. Omkar Rai, Director General, STPI, underlined, “IISF 2020 is going to be the largest science & technology show in the world to celebrate innovations. Young innovators and startups can leverage emerging tech to build disruptive products & solutions to address the challenges of society.”

He further added, “Industry 4.0 technologies can revolutionize the landscape of research, innovation & product development while boosting the economy of India.” “New age technologies like AI & Data Analytics will revolutionize the manufacturing and supply chain sectors. The next decade is crucial for India to take a lead globally in emerging technologies innovation,” cited Prof. Abhay Karandikar, Director, IIT Kanpur at New Age Technology Show at IISF 2020. On this occasion, Shri Subodh Sachan, Director, STPI INDIA & MD & CEO, STPINEXT in his welcome address emphasized, “AI systems are touching our lives in a more integrated way across various mundane and industrial tasks and accomplishing them with greater accuracy, precision, and efficiency.”

New Age Technology Show was followed by a session on Technology Deliberation & Innovation Showcase on AI-ML & Data Analytics. Brilliant thought leaders from Government, industry and academia deliberated on the cutting-edge technologies. Dr. B. K. Panigrahi, Professor, Department of Electrical Engineering, IIT Delhi, Dr. Mausam, Professor & Head, CSE and School of AI, IIT, New Delhi, Shri Umakant Soni, Co-founder AIfoundry at Chapter AI Bengaluru, Karnataka, India, Dr. Kalyan Netti, Principal Scientist, CSIR-National Geophysical Research Institute, Hyderabad, Shri. Ajinkya Malasane, Co-Founder at Playment.

During Startups Video Showcase, 6 promising startups, such as Liger Mobility, Raptee, Kshemin Labs, Grainpad Pvt. Ltd. Sumitra Singh and Xenon Digilabs Pvt. Ltd showcased their AI & Data Analytics based innovative products. The programme was coordinated by Dr. Pooja Ghosh, Assistant Professor, IIT Delhi, Dr. Dharendra Kumar, BLD Institute of Research & Learning and Shri Sanjay Burde, Senior Principal Scientist CSIR-NISCAIR.

Published in:
[Goa Chronicle](#)

‘Ease of doing science base for EoDB’

CSIR-IICT

25th December, 2020

Webinar held on science and technology

Ease of doing science is the foundation for ease of doing business. Research and development in science and engineering generate intellectual property, which in turn translates into technologies and products, paving the way for doing good business and create wealth towards achieving Atmanirbhar Bharat, said senior principal scientist CSIR-IICT M. Chandrasekharam on Thursday.

Delivering a keynote lecture on “Science & Technology Innovations and Interventions to Achieve Atmanirbhar Bharat” in the webinar organised by Little Flower Degree College, Uppal, in the context of the ongoing India International Science Fest (IISF), the largest online science festival, he highlighted that CSIR had successfully addressed COVID solutions irrespective of the mandate of individual laboratories across the country.

Quoting CSIR DG Shekhar C. Mande, Dr. Chandraekharam said that concerted activities for COVID-19 solutions would serve as a template for CSIR to meet any future national or global challenges. CSIR helped humanity in terms of developing low cost testing kits, repurposed drugs, and PPE kits. Nearly 100 participants from different states took part in the webinar, a press release said.

Published in:
[The Hindu](#)



సైన్స్ అండ్ టెక్నాలజీపై వెబ్ నార్

ఉప్పల్: లిటిల్ ఫ్లవర్ కళాశాలలో 'సైన్స్ అండ్ టెక్నాలజీ ఇన్నోవేషన్స్ అండ్ ఇంటర్ వెన్యూస్ టు ఆత్మనిర్భార్ భారత్' అనే అంశంపై గురువారం వెబ్ నార్ నిర్వహించారు. ఇండియా ఇంటర్నేషనల్ సైన్స్ ఫెస్టివల్ (ఐఐఎస్ఎఫ్) 2020లో భాగంగా నిర్వహించిన ఈ వెబ్ నార్ లో ఐఐసీటీ ప్రిన్సిపాల్ సైంటిస్టు డా.ఎం.చంద్రశేఖరం ప్రసంగించారు. కార్యక్రమంలో ప్రిన్సిపాల్ బ్రదర్ విన్సెంట్ రెడ్డి, వైస్ ప్రిన్సిపాల్ జయంతిరెడ్డి పాల్గొన్నారు.

छोटे उद्योगों में भी बन सकता है सोडियम हाइपोक्लोराइट

भुवनेश्वर. सोडियम हाइपोक्लोराइट एक गुणात्मक डिजेन्फेक्टेंट है, जिसमें स्वास्थ्य, सेनिटाइजेशन, जल शुद्ध करना, उद्योग गंदगी साफ करना, मत्स्य क्षेत्र आदि में प्रयोग होता है. ये मुंसिपालटी कॉर्पोरेशन, हाउसिंग अपार्टमेंट, उद्योग गंदगी द्वारा ज्यादा मात्रा में व्यवहृत होता है. अभी ये डिजेन्फेक्टेंट बड़ा रसायनिक उद्योग द्वारा उपलब्ध हो रहा है लेकिन, इसके चाहत समाधान एक प्रतियोगितामूलक मूल्य में स्थानीय माइक्रो/ क्षुद्र उद्योग में उत्पादित हो पाएगा, सीएसआईआर-आईएमएमटीइनक्यूवेसन सेंटर ईनटेक अधीन में एक स्मार्ट ऑप उद्योग एल एन इनडटेक, भुवनेश्वर विभिन्न क्षमता एवं विभिन्न तीव्रता के हाईपोजेन (सोडियम हाइपोक्लोराइट जेनरेटर) उपकरण के विकास, कल्पना एवं उत्पादन किया है.



Published in:

Navbharat Times

NIO, Navy to ink MoU, work on ocean studies

CSIR-NIO

24th December, 2020

The Indian Navy and the National Institute of Oceanography (NIO) will be signing a Memorandum of Understanding to collaborate and exchange expertise in the field of ocean studies. The MoU between NIO and the Navy's directorate of naval oceanology and meteorology will formalise the informal cooperation and scientific research being undertaken between the two agencies informally.

As part of the agreement, NIO and the Navy will undertake joint studies in the field of oceanography, particularly ocean modelling, ocean data collection and other professional engagements. The MoU will be signed virtually on Thursday afternoon by Commodore AA Abhyankar and professor Sunil Kumar Singh, director, CSIR-National Institute of Oceanography.

Naval officials said that the Indian Navy and CSIR-National Institute of Oceanography have a long history of informal cooperation in various scientific domains of interest and this MoU will now facilitate a roadmap for further meaningful interactions that is drawn on mutual strengths of the two organisations in the specific fields of oceanography.

“This collaboration will now facilitate utilisation and sharing the expertise of both the organisations with the latest developments in the field of oceanography,” said NIO in a statement.

Published in:

[The Times of India](#)

Up To 24 Hours Needed To Detect Mutant Covid Strain: Research Body Chief

CSIR

24th December, 2020

The genome sequencing tests being used in the hunt for the mutant strain of the coronavirus takes up to 24 hours, chief of India's Council of Scientific and Industrial Research (CSIR) told NDTV on Thursday. Addressing fears about the new virus variant that has stoked widespread fears over greater transmissibility, Dr Shekhar Mande also said that COVID-19 vaccines being tested and developed should be effective against it. Six labs across India are set to conduct the genome sequencing tests to find out the presence of the new mutant strain of the coronavirus. Samples of passengers who tested positive for COVID-19 after arriving from the UK are being sent to these labs. Two of these labs - Institute of Genomics in Delhi and Centre for Cellular and Molecular Biology in Hyderabad come under the CSIR. "The process of sending the samples to the labs is still ongoing. It is being coordinated by the National Centre for Disease Control. Sequencing to detect the presence of the UK strain can be done within a day because sequencing nowadays has become a routine affair. It will take a day or two at max," Dr Mande said.

The CSIR Director-General said the vaccines should be effective on the mutant strain. "Vaccines are very likely to be effective on the mutant strain. Because only a few mutations, about 15-17 of them are there in this strain. Vaccines are made in such a way that it targets the virus in a much bigger way and from many other sides so they will still generate an immune response," he said. On being asked whether India should carry out genome sequencing at a much larger scale, Dr Mande said, "There are multiple aspects to this. Sequence-based surveillance has to be better. CSIR's mitigation strategy for Covid has been going on for quite some time. We started molecular surveillance in March and keep carrying out genome sequencing of virus strains. We get specific requests from state governments too. For example, Kerala has asked us to keep carrying out genome sequencing of virus strains that are found in different districts of Kerala.

These surveillance strategies are useful. They help in detecting and isolating individuals at the earliest and prevent further spread of the infection.” **2Comments** About the UK strain, Dr Mande said, "Some of the mutations found in this strain have also been observed in other geographies like South Africa and Brazil. These mutations happen spontaneously. The ones in South Africa and Brazil were independent of the UK. So this is not an occurrence that is limited to the UK. These mutations can arise in India too."

Published in:
[NDTV](#)

Workshop on ‘Technology Business Incubator’ for start-ups, entrepreneurs held in J&K

CSIR-IIIM

24th December, 2020



An awareness camp cum workshop on ‘Technology Business Incubator’ for start-ups and entrepreneurs of Union Territory of Jammu and Kashmir was jointly organized here today by the Directorate of Industries and Commerce, Jammu and Indian Institute of Integrative Medicine-Technology Business Incubator (IIIM-TBI). Director, Industries & Commerce, Jammu, Anoo Malhotra, while inaugurating the workshop, asked all the stakeholders to take benefit of the tech-based incubator which has been located in the heart of Jammu. While welcoming all the stakeholders from different fields, Subah Mehta, General Manager, District Industries Centre, Jammu highlighted

the benefits of such workshops being conducted by the department on regular basis. Coordinator IIIM-TBI informed the gathering about the state of the art infrastructural facilities, scientific-intellectual support and business ecosystem offered by the IIIM-Technology Business Incubator to the potential budding entrepreneurs of Jammu and Kashmir. Dr. D. Srinivasa Reddy, Director CSIR-Indian Institute of Integrative Medicine Jammu, in his message, expressed strong need to create an entrepreneurship mind set in the J&K region as this place has a huge potential for industrial growth and development. He appreciated the support extended by the Directorate of Industries & Commerce by collaborating with IIIM- Technology Business Incubator (TBI) as such kind of awareness workshops will definitely bring out the newer ideas and would benefit the start-ups, entrepreneurs and the public in large. Meanwhile, startup companies, industrialists and entrepreneurs of Jammu primarily dealing with biotech and life sciences were sensitized about the facilities of IIIM-TBI and incubation support for new business

ideas. During the programme, a detailed presentation on “Technology Business Incubator” in Jammu region was given by Dr Saurabh Saran, Er Anil Kumar Katore both senior scientists CSIR-IIIM and Er Ankush Varma Coordinator IIIM-TBI.

Published in:

[Brighter Kashmir](#)

Women's role very key to Atma Nirbhar India: Governor Dr Tamilisai Soundararajan

CSIR-NEERI

23rd December, 2020



Governor Dr Tamilisai Soundararajan virtually addressed the inaugural of the three-day "Women Entrepreneurs' and Scientists' Conclave" held at the India International Science Festival (IISF), organised by the CSIR-NEERI, New Delhi on Tuesday. She stated that women's role is vital in achieving the goal of Atma Nirbhar Bharat, the self-reliant India. "It is disheartening to find that the women's representation is less than 20 per cent among the total entrepreneurs in our country. Similarly, women constitute less than 15 per cent of the scientists in the country. If all the women who are not into remunerative work enter the workforce, our country will be at least 27 per cent richer.

It will lead to equal, equitable and inclusive society," she added. Elaborating on the importance of promoting entrepreneurship among women in our country, the governor said that women-owned enterprises have the potential to create 150- 170 million new jobs. "They have the capability to transform the employment in the country. Women's equality and closing the gender gap are likely to help the country's GDP gain 16 per cent by 2025," she added, suggesting special provisions, increased funding, and the creation of exclusive institutions to promote entrepreneurship among women in our country. She called for increased seats for women in engineering and technical institutions and more number of fellowships to encourage women scientists. Union Women and Child Development Minister Smriti Irani was the guest of honour. Ministry of Science and Technology Secretary Dr Renu Swarup, CSIR Director-General Dr Shekhar C Mande, NEERI Director Dr Rakesh Kumar and IISF Principal Coordinator Dr Atya Kalpley were among others who spoke at the inaugural. A host of women entrepreneurs and scientists from across the country took part in the programme.

Published in:
[The Hans India](https://www.hansindia.com)

New COVID mutation a 'matter of concern': CCMB chief

CSIR-CCMB

23rd December, 2020



New virus yet to make appearance in India

The new virus strain causing a more contagious form of COVID-19 infection in the United Kingdom and a few other European countries is yet to make its appearance in India, but certainly the mutation is a "matter of concern" and people should ensure it does not spread. This can be done by reducing "personal interactions, social distancing, wearing masks and maintaining personal hygiene", insisted CSIR-Centre for Cellular & Molecular Biology (CCMB) Director Rakesh Mishra on Monday. "The new strain is very efficient when compared to other strains. It is a superior one in causing

higher infectivity even when infectivity among the population is already high. It is definitely evolving faster and binding to the receptor more effectively, which is expected from any such variant of the virus. However, it does not appear to be clinically or medically more dangerous and there is no change in the symptoms," he said, in an exclusive interaction. Indians should be more cautious especially during the holiday season because as the virus is working overtime and the only way we can win is by preventing infection. We cannot afford to have the virus mutating and experimenting more in such a large and dense population like ours. The onus is on us to prevent the spread of a more virulent form of virus even though the latest mutation is not yet seen in the country. If we have not seen, it does not mean that it is not there," cautioned Dr. Mishra. More genome sequencing and testing is likely to get more insight into this latest mutation. "We have to keep monitoring, increase testing and sequencing. We are already the lowest in terms of testing when compared to many other countries with such

huge case loads. For instance, we could make out that the predominant strain here was 'A3i' with 40% population affected and it soon came down and eventually disappeared as the 'A2a' clade of the virus became more prevalent," explained the director. Dr. Mishra was of the view that the 'opening up' has led to some kind of laxity and enhanced testing plus sequencing of the new COVID-19 cases should give an indication of any new mutations here. The silver lining is the new mutation does not seem to be much of a problem with the two new RNA bases vaccines made by Pfizer and Moderna though they are specific protein based.

It definitely will not affect the upcoming vaccines from Oxford AstraZeneca and Bharat Biotech which are both based on inactivated virus. More pressing issues are how good is the data coming out of clinical trials and how long will the purported vaccine protect us,"he added.

Published in:
[The Hindu](#)

CSIR-CEERI

23rd December, 2020

आईआईएसएफ का शुभारंभ • पीएम बोले-हमारे युवाओं की ऊर्जा पर विश्व की नजर

भारत विज्ञान महोत्सव के 41 इवेंट होंगे इनमें से एक पिलानी के सीरी में भी होगा

भास्कर न्यूज | पिलानी

प्रधानमंत्री नरेंद्र मोदी ने मंगलवार को छोटे भारत अंतरराष्ट्रीय विज्ञान महोत्सव (आईआईएसएफ 2020) का ऑनलाइन विधिवत शुभारंभ किया। हर साल होने वाले इस विज्ञान महोत्सव में इस साल औद्योगिक अनुसंधान परिषद (सीएसआईआर) पिलानी भी आयोजक है। महोत्सव के अनेक आयोजन यहां भी होंगे। उद्घाटन करते हुए प्रधानमंत्री नरेंद्र मोदी ने कहा कि भारत के युवाओं की ऊर्जा, उनकी प्रतिभा और नवाचारों पर पूरी दुनिया की नजरें हैं क्योंकि हमने सभी को नई दिशा दी है। मोदी ने नई राष्ट्रीय शिक्षा नीति के माध्यम से शिक्षा प्रणाली में किए बदलावों की चर्चा करते हुए देश में नए इंजीनियरिंग कॉलेज और आईआईटी जैसे उच्च स्तरीय शिक्षण संस्थान खोले जाने की जरूरत बताई। उन्होंने देश में



आईआईएसएफ का ऑनलाइन शुभारंभ करते पीएम नरेंद्र मोदी।

थीम : आत्मनिर्भर भारत और विश्व कल्याण के लिए विज्ञान

इस साल के कार्यक्रम की थीम 'आत्मनिर्भर भारत और विश्व कल्याण के लिए विज्ञान' है, जो आत्मनिर्भर भारत अभियान के लक्ष्य को पूरा करने के लिए वैज्ञानिक और तकनीकी प्रयासों के योगदान का प्रदर्शन करेगा। कार्यक्रम का आयोजन इस बार वर्चुअल हो रहा है। जिसमें 1 लाख से ज्यादा लोगों ने रजिस्ट्रेशन कराया है। चार दिनों के इस फेस्टिवल में 41 अलग-अलग कार्यक्रम होंगे। इनमें 13 नए कार्यक्रमों को भी शामिल किया गया है।

वैज्ञानिक नवाचार को बढ़ावा देने के लिए अटल इनोवेशन मिशन और स्कूल कॉलेजों में अटल टिकरिंग लैब और अटल इनक्यूबेशन सेंटर जैसी महत्वाकांक्षी योजनाओं की भी जानकारी दी। उन्होंने कहा कि युवा छात्रों को चाहिए कि वे निरंतर सीखें। उन्होंने विश्व समुदाय

को भारतीय ज्ञान-विज्ञान और युवा प्रतिभाओं में निवेश के लिए आमंत्रित किया। सीएसआईआर के महानिदेशक डॉ. शेखर सी मांडे ने मोदी का आभार व्यक्त किया। इस अवसर पर विज्ञान और प्रौद्योगिकी एवं पृथ्वी विज्ञान मंत्री डॉ. हर्षवर्धन के साथ विज्ञान और प्रौद्योगिकी विभाग, स्वास्थ्य मंत्रालय, जैव प्रौद्योगिकी आदि विभागों के सचिवों के अलावा विज्ञान भारती के अध्यक्ष डॉ. विजय पी भटकर एवं अन्य पदाधिकारी मौजूद रहे।

इस बार तेरह इवेंट ज्यादा : विज्ञान महोत्सव में इस बार 13 नए इवेंट के साथ कुल 41 इवेंट्स का आयोजन किया जा रहा है आयोजन का दायित्व सीएसआईआर और विज्ञान भारती के पास है। इन्हीं 41 इवेंट्स में से एक इवेंट "स्टूडेंट्स इंजीनियरिंग मॉडल कंपीटिशन एंड एक्सपोजे" सीएसआईआर-सीरी द्वारा किया जा रहा है।

Published in:

Dainik Bhaskar

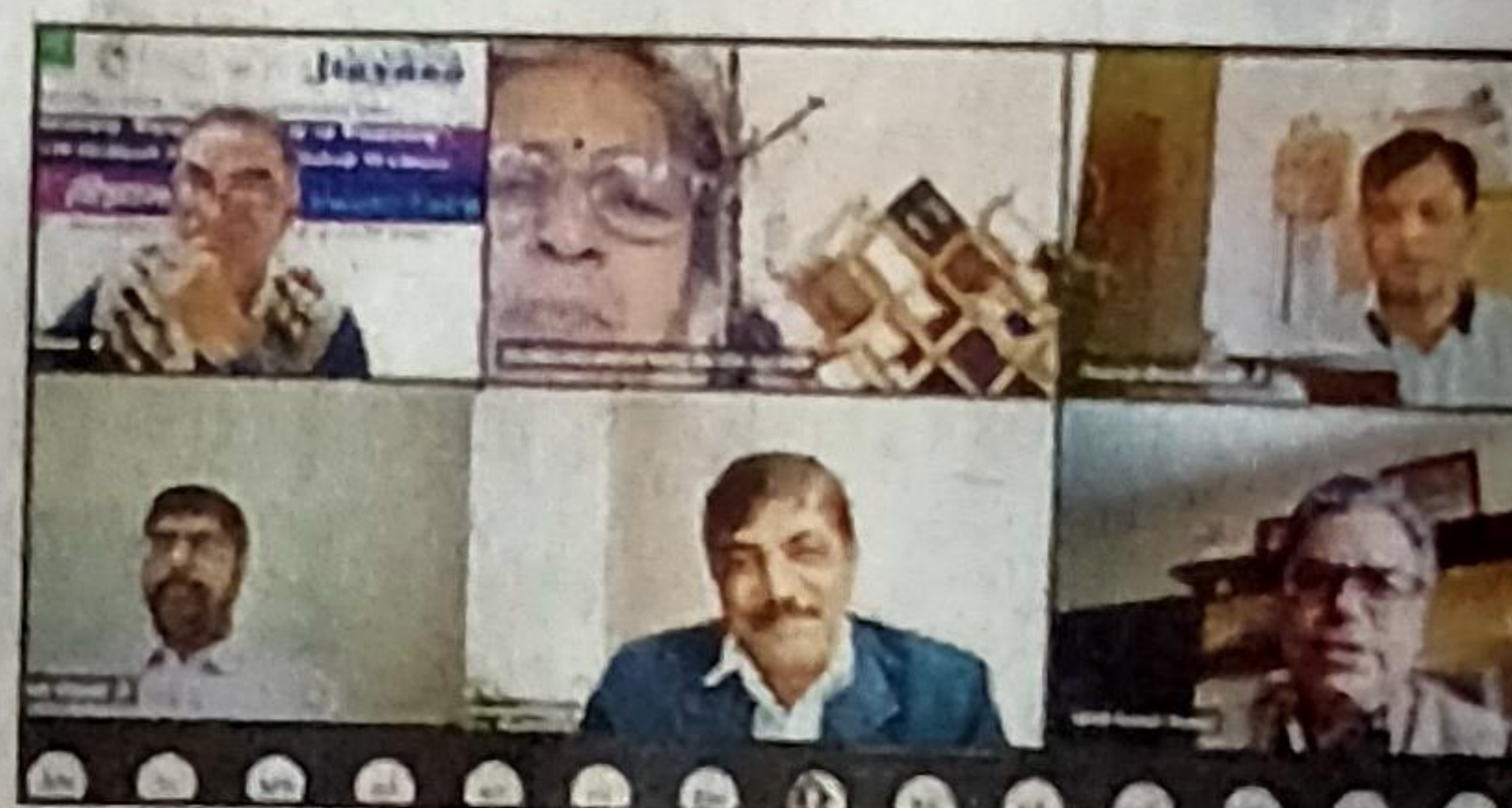
CSIR-NEERI

22nd December, 2020

CSIR-Neeri and Vibha organize Vigyan Yatra

C SIR-National Environmental Engineering Research Institute (**CSIR-Neeri**) and Vigyan Bharati (Vibha) organized online 'Vigyan Yatra' on as part of 6th **India International Science Festival (IISF-2020)** and Jigyasa: Student-Scientist Connect Programme.

Dr Rakesh Kumar, director of CSIR-Neeri in his welcome address cited some interesting examples where science could be applied for betterment of the people and environment.



Students can do better if they are innovative, creative and think out of the box, he said.

Scientist **Dr Atya Kapley** outlined the role of CSIR-Neeri in IISF-2020. Nagpur University's **Dr Umesh Palikundwar** described about the role of Vibha, Vidarbha chapter in IISF-2020 and nation building. **Naresh Chafekar**, joint secretary of Vigyan Bharati, Vidarbha chapter, spoke about efforts made by Vibha in promoting science through fairs, exhibitions and student-researcher interactive programmes.

Scientist **Dr KV George** spoke on 'Our atmosphere and its pollution'. Scientist **Prakash Kumbhare** coordinated the programme and **Asheesh Sharma** provided IT support.

Published in:

The Times of Indias

सीएसआईआर-नीरी और विभा ने किया विज्ञान यात्रा का आयोजन नई सोच के साथ विद्यार्थी बहुत कुछ अच्छा कर सकते हैं

सिटी भास्कर | नागपुर

सीएसआईआर-राष्ट्रीय पर्यावरण अभियांत्रिकी अनुसंधान संस्थान (सीएसआईआर-नीरी) और विज्ञान भारती (विभा) द्वारा 'विज्ञान यात्रा' का आयोजन किया गया। वैज्ञानिक गतिविधियों को प्रदर्शित करने के लिए विज्ञान यात्रा में एम.एस. टीम, यू-ट्यूब, फेसबुक का उपयोग किया गया। महाराष्ट्र, मध्य प्रदेश, छत्तीसगढ़ और देश के अन्य भागों के केन्द्रीय विद्यालय, नवोदय विद्यालय, सरकारी स्कूलों आदि के विद्यार्थियों और शिक्षकों ने कार्यक्रम में प्रमुखता से भाग लिया। स्वागत संबोधन में सीएसआईआर निदेशक डॉ. राकेश कुमार ने रोचक उदाहरण पेश किए,



जिनका उपयोग जनहित और पर्यावरण की बेहतरी के लिए किया जा सकता है। उन्होंने कहा कि नवप्रवर्तनशील और सृजनात्मक सोच के साथ विद्यार्थी बहुत अच्छा कर सकते हैं। विज्ञान यात्रा निरंतर चलती रहनी चाहिए ताकि आत्मनिर्भर भारत एवं विश्व कल्याण के लक्ष्य को हम हासिल कर सकें। नीरी की

वैज्ञानिक एवं प्रमुख निदेशक डॉ. अत्या कपले ने आईआईएसएफ-2020 में सीएसआईआर-नीरी की भूमिका के बारे में विस्तार पूर्वक बताया। उन्होंने बताया कि आईआईएसएफ-2020 के दौरान नीरी दो मुख्य कार्यक्रमों वुमन साइंटिस्ट एंड एंटरप्रेन्योर कॉन्क्लेव और सेनिटेशन एंड वेस्ट मैनेजमेंट को समन्वित करेगा।

विज्ञान को बढ़ावा देने के प्रयासों के बारे में दी गई जानकारी

रातुम विवि के भौतिकशास्त्र विभाग के एसोसिएट प्रोफेसर डॉ. उमेश पालीकुंडवार ने आईआईएसएफ-2020 और राष्ट्र निर्माण में विभा, विदर्भ चैप्टर की भूमिका के बारे में बताया। उन्होंने भारत अंतरराष्ट्रीय विज्ञान महोत्सव (आईआईएसएफ) और विभा के विदर्भ चैप्टर के उद्देश्यों के बारे में जानकारी दी। विज्ञान भारती के संयुक्त सचिव नरेश चाफेकर ने प्रदर्शनियों अथवा अन्य कार्यक्रमों के माध्यम से विभा-विदर्भ द्वारा विज्ञान को बढ़ावा देने के प्रयासों के बारे में उल्लेख किया गया। डॉ. के. वी. जॉर्ज ने 'हमारा वायुमंडल और उसका प्रदूषण' विषय पर व्याख्यान दिया। विज्ञान यात्रा का समन्वयन सीएसआईआर-नीरी के वरिष्ठ प्रधान वैज्ञानिक प्रकाश कुम्भारे ने किया। कार्यक्रम को सफल बनाने में नीरी के प्रधान वैज्ञानिक आशीष शर्मा ने महत्वपूर्ण भूमिका निभाई।

Published in:
Dainik Bhaskar

Special Lecture on History of Indian Science by Alagappa University

CSIR-IGIB, NEERI

22nd December, 2020



INDIA INTERNATIONAL SCIENCE FESTIVAL 2020 | **IGIB** | **VIGYAN YATRA** | Science for Self-Reliant India and Global Welfare

Programme

- Welcome address by Dr. Anurag Agrawal, Director, CSIR - IGIB
- IGIB at glance and IGIB S&T Showcase
- Keynote address by Prof. K. VijayRaghavan
- Vote of thanks

To Join: <https://youtu.be/78M4P0A4k>
<https://www.facebook.com/igibofficial>

21 December, 2020
Time: 3:30 to 5:30 pm

Principal Scientific Advisor To The Government of India
 Director, CSIR-IGIB

MINISTRY OF SCIENCE AND TECHNOLOGY
 MINISTRY OF EARTH SCIENCES
 MINISTRY OF HEALTH & FAMILY WELFARE
 GOVERNMENT OF INDIA

CSIR-IGIB

In the run up to the India International Science Festival 2020, CSIR-Institute of Genomics and Integrative Biology (CSIR-IGIB), New Delhi participated in the Vigyan Yatra on December 21. The Director of CSIR-IGIB, Dr. Anurag Agrawal, kicked off the online program with a reminder of Article 5A(h) of the Indian Constitution which states that it is the duty of every citizen of India to develop the scientific temper, humanism and the spirit of enquiry and reform, stressing how the solution to many problems of the modern world lie in science. Dr. Agrawal emphasized that the rapid response of the scientific world to fight against the COVID-19 pandemic came from years

of investment into good science, irrespective of the classifications of basic and applied. Prof. K. VijayRaghavan, Principal Scientific Advisor to the Government of India delivering the keynote address noted how building redundancy into our scientific establishments is essential for a fast and nimble response in an emergency such as the COVID-19 pandemic. He spoke about how science in post-COVID era cannot stand isolated but rather had to move forward hand in hand with industry and society. Constant dialogue, challenges and counter-challenges from one to the other are important for us to keep our research relevant and responsive, he added. A short video was screened highlighting the achievements of IGIB in the areas of genomic medicine. IGIB has a major focus on genomics with special emphasis on genomics of human diseases; from the sequencing of the first Indian genome in 2009 to sequencing the genome of 1000 Indians, to creating a reference database of Indian genomes for precision medicine development. The expertise in genomics also allowed the institute to rapidly sequence

large numbers of COVID-19 samples when the pandemic struck India early this year. CSIR-IGIB has also been leading the fight against COVID-19 by developing a paper-based RNA diagnostic system called FELUDA based on the CRISPR-Cas9 system. This development was the result of already ongoing research into developing CRISPR-diagnostics for sickle cell anemia. IGIB is also using stem cell technology to correct genetic diseases such as sickle cell anemia and thalassemia, which has a wide prevalence in the country. Finally, research at CSIR-IGIB has led to the birth of a modern scientific discipline known as Ayurgenomics. Ayurvedic doctors and genomics scientists have over the years worked together to identify a genomic correlate for the Prakriti-based stratification of population used in Ayurveda. Alagappa University organized a Special Lecture on “History of Indian Science” under the banner of India International Science festival (IISF) through the virtual platform to promote history of science in India. The event was conducted to create awareness amongst the youth about the Indian Civilization and its imprints across the globe. Total 600 participants, including Undergraduate students, post-graduates, research scholars and school students from various colleges, institutes and schools from the Sivaganga District of Tamil Nadu joined the event. Prof. N. Rajendran, Vice-Chancellor, Alagappa University, Karaikudi mentioned about the very evolution of science as the struggle against nature. He also highlighted that the CharakaSamkitha invented anciently is used for 150 surgeries alongside shusritha. Prof. S. Sivasubramanian, Former, Vice-Chancellor, Bharathiar University, Coimbatore in his special address emphasized upon the nature, types, fields and need of science through which scientists have plied their craft not because of the importance for glory or material award but to satisfy their own curiosity about the way the world works. Dr. D.K. Hari, Founder, Bharath Gyan, Chennai in his Keynote speech said, “India has been noted to be the scientific country right from Vedic to modern times with the usual fluctuations that can be expected of any country”. Shri. V. Parthasarathy, Treasurer, Arivial Sangam, VIBHA Tamil Nadu Chapter felicitated the chief guests. Prof. H. Gurumalles Prabu, Registrar, Alagappa University delivered the thematic address. Prof. Sanjeev Kumar Singh, Nodal Officer – Alagappa University, IISF 2020 proposed the Vote of thanks. He has also encouraged the participants of the event to join the main event of IISF 2020.

CSIR-National Environmental Engineering Research Institute (CSIR-NEERI) and Vigyan Bharati (VIBHA) organised the 'Vigyan Yatra' as part of the 6th India International Science Festival (IISF-2020) and Jigyasa: Student-Scientist Connect Program to nurture scientific temper and inspire young minds. The Vigyan Yatra was organised to showcase the scientific activities virtually. Students and teachers from Kendriya Vidyalayas, Navodaya Vidyalayas, Government Schools, etc. from Maharashtra, Madhya Pradesh, Chhattisgarh and other parts of India prominently participated in this programme. Dr. Rakesh Kumar, Director, CSIR-NEERI in his welcome address cited some interesting examples where science could be applied for betterment of the people and environment. Students can do better if they are innovative, creative, and think out of the box, he added. Dr. (Mrs) Atya Kapley, Scientist and Head, Director's Research Cell, CSIR-NEERI outlined the role of CSIR-NEERI in IISF-2020. She informed that CSIR-NEERI would coordinate two major events, namely Women Scientists' and Entrepreneurs' Conclave and Sanitation & Waste Management.

Prof. Umesh Palikundwar, Department of Physics, RTM Nagpur University described about the role of VIBHA, Vidarbha Chapter in IISF-2020 and nation building. Dr. K V George, Scientist and Head, Air Pollution Control Division delivered a popular science lecture on 'Our Atmosphere and Its pollution'. The students interacted with the CSIR-NEERI scientists and cleared their scientific concept. IISF promotional video and Dr APJ Abdul Kalam's inspirational video were screened on this occasion. The IISF 2020 is being organised by Council of Scientific & Industrial Research (CSIR) in collaboration with Ministry of Earth Sciences, Department of Science and Technology (DST), Ministry of Health and Family Welfare, Ministry of Earth Sciences, Department of Biotechnology (DBT) and Vijnana Bharati (VIBHA).

Published in:

[India Education Diary](#)

IISF 2020 to help youth develop 21st century skills: CSIR DG Mande; PM Modi to inaugurate today

CSIR-NISTADS, NPL

22nd December, 2020



The 6th edition of the India International Science Festival (IISF) 2020 will kick off today, 22nd December. Prime Minister Narendra Modi will deliver his inaugural address at 4:30 pm through video conferencing, announced the Union Minister of Science and Technology, Harsh Vardhan. The announcement was made on Monday, 21st December, during the curtain-raiser press conference of IISF. Sci-Tech Minister Vardhan will also be present on the occasion. The goal of the IISF 2020 is to help youth develop 21st-century skills, with a focus on scientific knowledge, creativity, critical thinking, problem-solving, and teamwork. A long-term objective is to encourage students to study

and work in scientific fields. IISF aims to inculcate scientific temper among the masses, engage the public with science and show how Science, Technology, Engineering and Mathematics (STEM) can provide solutions to improve lives. “The day when IISF begins is the birthday of world-renowned Indian mathematician Srinivas Ramanujan, and it will culminate on December 25, the birthday of former Prime Minister Atal Bihari Vajpayee. It will be the largest science festival to be held on the virtual platform,” said Harsh Vardhan. The theme of this year’s festival is ‘Science for Self-reliant India and Global Welfare.’ Shekhar C Mande, Secretary of the Department of Scientific and Industrial Research (DSIR) and Director-General of the Council of Scientific and Industrial Research (CSIR) said that IISF’s objective is to introduce the general public to different facets of science and technology. “This year’s festival goal is to help youth develop 21st-century skills, with a focus on scientific knowledge, creativity, critical thinking, problem-solving, and teamwork. A long-term objective is to encourage students

to study and work in scientific fields and the government,” said CSIR DG Mande. The nodal institution for the event is CSIR-National Institute of Science, Technology and Development Studies (NISTADS), New Delhi. This Science Festival is organised jointly by the Department of Science and Technology (DST), Council of Scientific and Industrial Research (CSIR), Ministry of Earth Sciences, Department of Biotechnology (DBT), Indian Council of Medical Research (ICMR) and Vijnana Bharati (VIBHA).

IISF was conceptualised by the Ministry of Science and Technology and Ministry of Earth Sciences in association with Vijnana Bharati to popularise science and technology in the country. The first India International Science Festival was held in 2015, at the Indian Institute of Technology (IIT), Delhi. The second IISF was held at CSIR-National Physical Laboratory (NPL), Delhi. IISF was organised at IIT, Chennai in the third year and in the fourth year it was organised at the Indira Gandhi Pratishthan, Lucknow. Last year the festival was held at Kolkata. Information on various activities related to the science festival and registration of partners is available on the IISF website.

Published in:
[Indus Dictum](#)

CGWB, CSIR-NGRI Sign MoA For High-Resolution Aquifer Mapping And Management

CSIR-NGRI

22nd December, 2020

A Memorandum of Agreement (MoA) was signed between Central Ground Water Board and CSIR-NGRI for high-resolution aquifer mapping and management in arid region of the north-western part of the country here on Monday. In a statement, the Ministry of Jal Shakti said: "An MoA was signed between Central Ground Water Board (CGWB), Ministry of Jal Shakti and CSIR-NGRI, [Hyderabad](#) for use of advanced heliborne geophysical survey and other scientific studies in parts of the States of Rajasthan, Gujarat and Haryana under the aquifer mapping programme." The MoA was signed by Chairman, CGWB and Director, CSIR-NGRI in presence of the Union Minister of Jal Shakti Gajendra Singh Shekhawat, and Union Minister of Science and Technology, Health and Family Welfare and Earth Sciences Harsh Vardhan.

Under phase-I of the project, an area of nearly 1 lakh square kilometre spreading over nearly 65,500 sq km of western arid Rajasthan, covering parts of Bikaner, Churu, Jalor, Pali, Jaisalmer, Jodhpur and Sikar districts, 32,000 square kilometre arid parts of Gujarat, covering [Rajkot](#), Jamnagar, Morbi, Surendranagar and Devbhumi Dwarka districts and nearly 2500 sq km of Haryana, covering Kurukshetra and Yamuna Nagar districts will be covered at an estimated cost of Rs 54 crores. The major objectives of the study include high-resolution aquifer mapping using heliborne geophysical studies, aquifer geometry of principal aquifer with demarcation of de-saturated and saturated aquifers, aquifer system with relatively fresh and saline zones and selecting suitable sites for groundwater withdrawal and water conservation through artificial or managed aquifer recharge.

"This is the first time the Ministry of Jal Shakti has decided to use the state of the art technology for identification of aquifers in such a large arid/semi-arid area of the country," the press statement read.

The study is likely to generate groundwater data in a very short time period and will help CGWB in expeditiously finalising the groundwater management plan in the water-stressed areas. The findings of the study will help in formulating site-specific plans for improving groundwater levels in the water-stressed areas and charter the road map for sustainable management of groundwater resources, it added. (ANI)

Published in:
[Business World](#)

Fight against coronavirus an example Atmanirbhar India: Harsh Vardhan

CSIR-NISTADS

21st December, 2020



Union minister for science and technology, earth sciences, and health and family welfare Harsh Vardhan said on Monday, “The fight against the coronavirus pandemic is an example of India’s self-reliance. He also praised Prime Minister Narendra Modi for his leadership during the pandemic. “India is in top 10 positions in most indicators because of the vision of Prime Minister Modi,” he said. Vardhan made the comments during the curtain-raiser press conference of the sixth India International Science Festival-2020 (IISF 2020). IISF 2020 will be organised virtually from December 22, which falls on the birthday of world-renowned Indian mathematician Srinivas Ramanujam,

and will culminate on December 25, the birthday of former prime minister Atal Bihari Vajpayee. It will be the largest science festival to be held on the virtual platform. The central theme of this year’s festival is “Science for Self-reliant India and Global Welfare”. Prime Minister Narendra Modi will deliver the inaugural address at IISF 2020 on Tuesday evening through video conferencing. Harsh Vardhan will also be present on the occasion. Shekhar C Mande secretary of DSIR and director general of the Council of Scientific & Industrial Research (CSIR) has said IISF’s objective is to induce the person about different facets of science and technology. Launched in 2015, IISF is a celebration to promote science and technology and the goal of this year’s festival is to help youth develop 21st-century skills, with a focus on scientific knowledge, creativity, critical thinking, problem-solving, and teamwork. A long-term objective is to encourage students to study and work in scientific fields, the government has said. The nodal institution for the IISF 2020 is CSIR-NISTADS. The festival is jointly organised by

the department of science and technology (DST), CSIR, ministry of earth sciences, ministry of health and family welfare and the department of biotechnology (DBT) and VijnanaBharati (VIBHA) as well as with the support of a large number of other organisations.

Published in:
[Hindustan Times](#)

Vaccine will be equally effective against new coronavirus strain: CSIR DG

CSIR-CCMB, IGIB

21st December, 2020



The coronavirus vaccines will be equally effective against the new mutant of the virus and there is no reason to panic, Council for Scientific and Industrial Research Director General Shekhar Mande said on Monday. He said the transmissibility of the new strain N501Y is a "bit higher" but this does not mean it is more lethal and more people are going to die due to it. "It is likely that there will be differences between certain aspects like anti-bodies but it doesn't necessarily mean that vaccines will be ineffective. Vaccines will be equally effective despite the mutation. So there is no reason to panic," Mande told PTI.

Indian institutions have sequenced over 4,000 genomes of the coronavirus and submitted to the Global Initiative on Sharing All Influenza Data (GISAID). The CSIR's Institute of Genomics and Integrative Biology (IGIB), Delhi and Centre for Cellular and Molecular Biology (CCMB), Hyderabad have alone done sequencing of over 2,200 genome sequences of coronavirus in India. Mande said, "We have not found this (particular mutation) in Indian isolates yet." He said scientists in India and all over the world are watching this variant closely. The mutation has been independently observed in the UK, Brazil and South Africa, he said. "Scientists are looking at the mutations very closely. It is too early to draw any conclusions," Mande said. He said the new variant can be diagnosed with the RT-PCR but it needs to be assessed if it can be equally effective for the Rapid Antigen tests. "But there is nothing to suggest it (RAT) does not work right now," he said. Mande said there might be differences in the monoclonal (lab-made) antibodies which recognise the it.

particular region in a virus which is not otherwise mutated. "But in the mutated virus that monoclonal antibody may not effectively work against this changed variant," he added. Several European countries -- France, Germany, the Netherlands, Belgium, Austria and Italy -- have banned flights from the UK with the British government warning that the potent new strain of the virus was "out of control" and imposing a stringent new stay-at-home lockdown from Sunday.

British Prime Minister Boris Johnson last week said a fast-moving new variant of the virus that is 70 per cent more transmissible than existing strains appeared to be driving the rapid spread of new infections in London and southern England in recent weeks. But he stressed "there's no evidence to suggest it is more lethal or causes more severe illness," or that vaccines will be less effective against

Published in:

[Business Standard](#)

Please Follow/Subscribe CSIR Social Media Handles



[CSIR INDIA](#)



[CSIR_IND](#)



[CSIR India](#)