

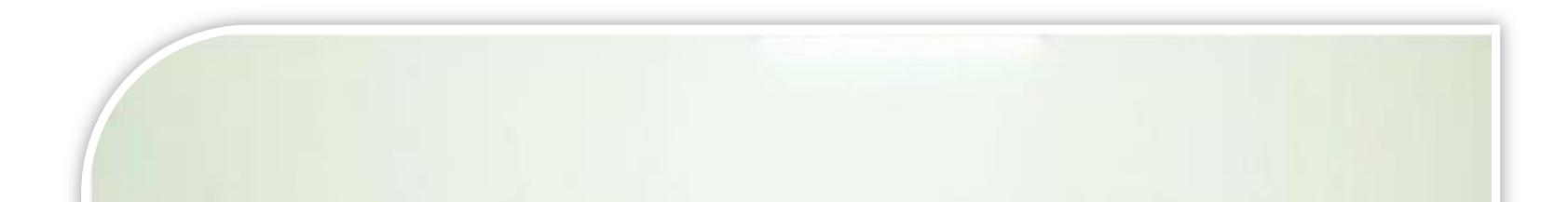




## NEWS BULLETIN

## 16 TO 20 DECEMBER 2020









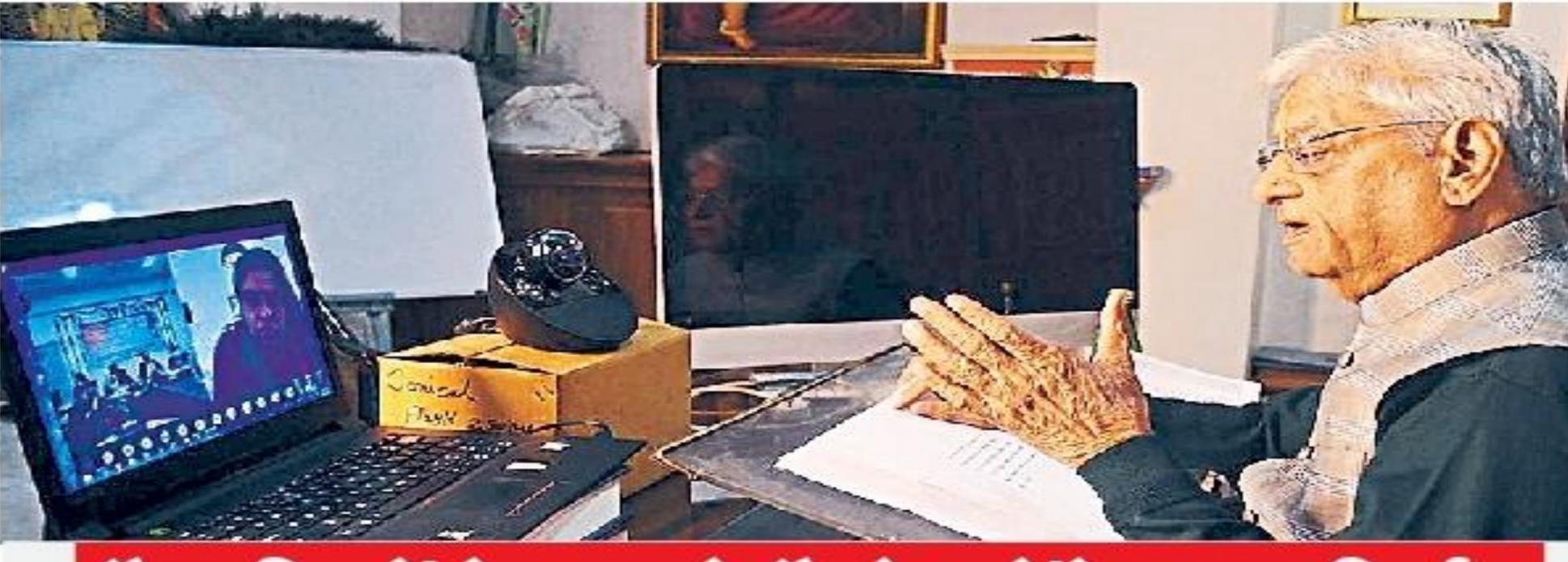


CSIR-CEERI

### 20<sup>th</sup> December, 2020

## भारतीय अंतरराष्ट्रीय विज्ञान महोत्सवः जयपुर पड़ाव पर संबोधन आधूनिक शिक्षा-विज्ञान के भरोस नहीं बन सकते जगत गुरु: कोठारी

पत्रिका न्यूज नेटवर्क patrika.com जयपुर. राजस्थान पत्रिका समूह के प्रधान संपादक गुलाब कोठारी ने आधुनिक शिक्षा नीति और विज्ञान पर गंभीर सवाल उठाते हुए कहा है कि इनके भरोसे देश विश्व को नेतृत्व देने वाला नहीं बन सकता है। हम अपनी भाषा में शिक्षा नहीं दे पा रहे हैं, तो कैसे आत्मनिर्भर बनेंगे। आज विज्ञान एक बीमारी का इलाज कर दूसरी बीमारी को जन्म दे रहा है, लेकिन वेद और आयुर्वेद ने लोगों को स्वस्थ रखा है। स्कूल में ही आयुर्वेद को सिखाया जाए, तो चिकित्सा विभाग की जरूरत ही नहीं रहेगी। कोठारी ने भारतीय अंतरराष्ट्रीय विज्ञान महोत्सव के तहत शनिवार को विज्ञान यात्रा के जयपुर में पड़ाव पर आयोजित कार्यक्रम को संबोधित किया। उन्होंने कहा कि जिस ज्ञान-विज्ञान के सहारे देश को जगत गुरु कहा जाता था, उसको नए परिवेश में नए वेश में लौटना होगा। क्या कारण रहे कि अथाह ज्ञान सम्पदा होते हुए भी हम विश्व को नेतृत्व नहीं दे पा रहे हैं। इस पर चिंतन करना होगा। शिक्षा हमें स्वयं से



वंशाखियों के सहारे कैसे बनेगे आत्मनिर्भर

प्रधान संपादक कोठारी ने कहा कि क्या हम वैशाखियों के सहारे आत्मनिर्भर हो सकेंगे? यदि आत्मनिर्भर नहीं हुए तो कैसे विश्व कल्याण का मार्ग प्रशस्त कर पाएंगे? जब आधुनिक विज्ञान पैदा भी नहीं हुआ था, कृष्ण ने गीता में विज्ञान का स्पष्ट उद्घोष किया था। अब भी समय है, हम वैदिक–पौराणिक–

औपनिषदिक ज्ञान को शिक्षा नीति का आधार बनाएं। पेट भरने के लिए 20 साल तक शिक्षा प्राप्त करनी पड़ती है। आत्मनिर्भरता का प्रश्न ही खो गया है। सारा वातावरण बेरोजगारी से गूंज रहा है। स्थिति यह आ गई है कि चाहें तो वेद की शरण में चले जाएं और चाहें तो प्रलय की प्रतीक्षा करें।

### कोरोना ने पोल खोली

कोरोना महामारी ने छोटी सी अवधि में शर्मा ने कहा कि कोरोनाकाल के 8 माह में हमने दिखा दिया कि हम कैसे समझा दिया, आधुनिक विज्ञान ने मानवता को कितना मारा। कोरोना आत्मनिर्भर बन सकते है, चुनौतियां वायरस स्वयं ही विज्ञान की देन है। हमको रोक नहीं सकती है। आत्मनिर्भरता का संस्कृति से भी नाता 8 माह में हमने ताकत दिखाई: विज्ञान है, यह पाठ्यपुस्तक का विषय नहीं है। एवं प्रौद्योगिकी सचिव प्रो. आशुतोष

उन्होंने कहा कि आज विकास के नाम पर सब उलट गया है। उच्च शिक्षा के नाम पर आत्मा कॉलेज में ही छूट जाती है। तब आत्मनिर्भर कैसे होंगे? आज का शिक्षित तकनीक के भरोसे अकेला जीना चाहता है। मोबाइल पर 5 जी व एआई तकनीक आने वाली है, जिससे इंसान रोबोट बनकर रह जाएगा। शिक्षा से भारत लुप्त है। हर देश अपनी मातृभाषा में शिक्षा देता है और अपनी विज्ञान वहां तक भी नहीं पहुंचा है। तो विश्व को भ्रमित करना ही होगा।

दूर ले जा रही है

संस्कृतिपर गर्व करता है, लेकिन हमारी शिक्षा स्वयं से भी दूर ले जाती है। हम संस्कृत को देवभाषा कहते हैं, किन्तु उस पर विश्वास कहां है?

ऐसे तो विश्व को भ्रमित ही करेंगे

उन्होंने कहा कि जो ज्ञान हजारों वर्ष पहले ऋषियों ने दिया था, आज का

आजतोविज्ञानभीजीन्सऔरपुनर्जन्म पर काम कर रहा है। शोध के अभाव में न पीढ़ी को और न ही विश्व को आश्वस्त कर पा रहे हैं। आधुनिक विज्ञान बाह्रय जीवन और शरीर की सुविधाओं पर आधारित है,जबकि वेद शरीर को नश्वर कहता है। सवाल यह है कि जिस ज्ञान पर

हमारी सरकारें और शिक्षा नीतियों को

विश्वास नहीं है, उस ज्ञान की चर्चा करना

Published in:

Rajasthan Patrika



### CSIR-IMMT



### 20<sup>th</sup> December, 2020

New Farm Laws Brought By PM Modi Has All Ingredients To Make India Self Reliant: Prof Pasupalak

By PragativadiNews 1 — On Dec 19, 2020 — 👁 24

Bhubaneswar: The Press Information Bureau (PIB) Bhubaneswar has organised a webinar on the theme "Science and Atmanirhbar Bharat" on Saturday. The webinar was organised ahead of the mega India International Science Festival (IISF) 2020, which will be held virtually between December 22 and 25 in New Delhi.

The webinar was attended by Shri SK Malviya, Additional Director General, PIB Bhubaneswar, Prof Suddhasatwa Basu, Director, CSIR-Institute of Minerals and Materials Technology (CSIR-IMMT) Bhubaneswar, Prof Surendranath Pasupalak, Chairman, SAC ICAR-Patna, former Vice Chancellor of OUAT Bhubaneswar and Dr Sarat Chandra Sahu, Director Department of Civil Engineering, ITER, SoA Deemed to be University and former Director of Regional Meteorological Centre Bhubaneswar.



Beginning the webinar, Shri Malviya said that the theme of the webinar, "Science and Aatmanirbhar Bharat" is apt for the moment as the country is marching ahead to become self-reliant. "The comfort we are having today is simply because of science. Science and technology has contributed a lot to make India Aatmanirbhar," said Shri Malviya.

Addressing in the webinar, Prof Suddhasatwa Basu highlighted the research and development work going on at CSIR-IMMT Bhubaneswar and also talked about both essential and critical minerals and materials. He said that research is going on to lessen the import of different kinds of essential and critical minerals. He also informed that their institute has created an incubation centre to provide hands-on training to the homegrown startups and promote entrepreneurship.

Talking about critical materials, Prof Basu said that as the country is slowly moving to adopt the e-vehicle system in the coming years, India will be in need of a great amount of lithium and cobalt to make batteries. "Currently we import the raw materials for making the batteries from Australia or Central America. The cost of the batteries go up due to the import practice. We are working on developing a technology to produce batteries in the country itself," Prof Basu said.

Talking about the role of science in the development of agriculture, Prof Surendranath Pasupalak said that the journey of Aatmanirbhar Krishi began in the late 70s and by the 80s, the country had started to become self-reliant in agriculture. "Constant use of science and technology has made agriculture selfreliant now," Prof Pasupalak said.

He said that scientists across different research institutes are now issuing farmers bulletin and weather forecasts, which have helped farmers to get ready for any unprecedented situation. "Agricultural scientists contribute a lot from production of the goods to its storage to its supply. The new farm laws brought by Prime Minister Shri Narendra Modiji has all the ingredients in itself to make use of science in agriculture and make India self-reliant," Prof Pasupalak said.

Dr Sarat Chandra Sahu highlighted the growing involvement of science and technology in the meteorology that has helped mitigate natural disasters. "There was a time when we were depending on manual systems, but thanks to scientific evolution, we are now being able to make an early forecast of natural disasters. We can't prevent the calamities, but with the help of science and technology, we will be able to prepare for it," Dr Sahu said.

Stressing on the need to change lifestyle, Dr Sahu said that the calamities are happening because of environmental change. "Science and technology will be available to help. It will further improve in the coming time, but the people need to bring a change in their lifestyle. Instead of personal vehicles, we can use public transport. We need to lessen our electric consumption too," Dr Sahu opined.

The webinar was ended with the concluding remarks of Shri Malviya. It was conducted by Pradeep Kumar Choudhry, Media and Communication Officer, PIB Bhubaneswar.

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CSIR-IMMT

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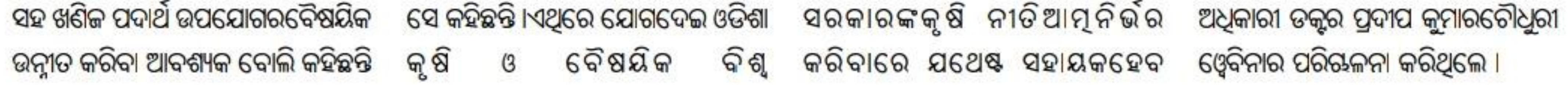
Biswavani

### 20<sup>th</sup> December, 2020

# ଆତ୍ମନିର୍ଭର ଭାରତ ଶୀର୍ଷିକ ଓ୍ୱେବିନାର



କେନ୍ଦ୍ରର ପୂର୍ବତନନିର୍ଦ୍ଦେଶକ ଡକୁର ଆନ୍ତର୍କାତିକ ଧାନ ଓ ଗହମ କ୍ଷେତ୍ରରେ ଦେଶ ଆମର ଭୂମିକା ଗ୍ରହଣ କରେ । ମାତ୍ର ଏଥିପାଇଁ ବିଜ୍ଞାନ ଆମଦାନୀଉପରେ ନିର୍ଭରଶୀଳ ନହୋଇ ଆମ୍ବରିର୍ଭରଶୀଳହୋଇଥିଲେ ମଧ୍ୟ ଏହାର ଶରତ ଚନ୍ଦ୍ର ସାହୁ ପାଶିପାଗ ବିଜ୍ଞାନର ମହୋସ୍ନର (ଆଇଆଇଏସଏଫ) ୨୦୨୦ ଆମ୍ବର୍ନିର୍ଭରଶୀଳ ହୋଇ ଧାର୍ଯ୍ୟ ଲକ୍ଷପ୍ରରଣ ଅଗ୍ରଗତିଯୋଗୁଁ ଆଳି ବିପର୍ଯ୍ୟୟ ପ୍ରଶମନ ଗୁଣାମୁକ ବିକାଶ ହେଲେ ଆମେ ପୁର୍ବରୁ ଏହି ଅବ୍ୟବହିତ ଓ୍ୱେବିନାରଆୟୋକିତ ହୋଇଥିଲା । କରିବା ଆବଶ୍ୟକ । ଉଦାହରଣ ସ୍ୱରୂପ କ୍ଷେତ୍ରରେ ଅନେକ ସୁଧାର ଆସିଛିବୋଲି ନିକରଗୁକରାଣ ମେଂଟାଇବା ସହ ବଳକା ଆମ୍ବନିର୍ଭର ଭାରତ ଗଠନରେ ବିଜ୍ଞାନ ଆମେ ମୃତିକାରେ ସ୍ୱାବଲମ୍ଭୀ ହେଲେ କହିଛନ୍ତି । ସଠିକ ଆକଳନ ଯୋଗୁଁ ଶସ୍ୟ ବାହାରକୁ ରପ୍ତାନୀକରିପାରିବା । ଡାଲି ବିପର୍ଯ୍ୟୟ କବଳରୁପିର୍ବାପେତ୍ରା ଅନେକ ଓବୈଜ୍ଞାନିକଙ୍କ ଭୂମିକା ଅନସ୍ପିକାର୍ଯ୍ୟ ଆମକୁ ଆମଦାନୀ ପାଇଁ ଚୀନଉପରେ ଓ ତୈଳବୀଜ ଜାତୀୟ ଶସ୍ୟ ଉତ୍ପାଦନ ନିର୍ଭର କରିବାକୁ ପଡିବ ନାହିଁ । ଏହାଛଡା ଆମକୁ "ବୁଦ୍ଧି କରିବାକୁ ହେବ । ୟଷୀଙ୍କ ଧନ ଜୀବନ ହାନୀ ରୋକାଯାଇପାରିଛି ବୋଲି ବକ୍ତାମାନେ ମତବ୍ୟକ୍ତକରିଛନ୍ତି ।ଏଥିରେ ଯୋଗଦେଇ ଭୁବନେଶ୍ୱରସ୍ଥିତ ଖଣିକ ପଦାର୍ଥରୁ ସଂଗୃହୀତ କଂଚାମାଲ ସଚେତନତା ସହ ବୈଜ୍ଞାନିକପରାର୍ମ ଓ ପତ୍ରସୂଚନା କାର୍ଯ୍ୟାଳୟର ଅତିରିକ୍ତ ବିଜ୍ଞାନ ଓ ଶିଳ୍ପ ଗବେଷଣାପରିଷଦ ପର୍ଯ୍ୟାପ୍ତ ଉପଲହ୍ର ହେଲେ ଅଣୁ, କ୍ଷୁଦ୍ର ଉଦ୍ଭାବକ ନୃତନ କୃଷି ଯନ୍ତପାତି ମହାନିର୍ଦ୍ଦେଶକ ଶ୍ରୀ ଶୈଳେଶକୁମାର (ସିଏସଆଇଆର) ଓ ଖଣିଜ ଓ ଖଣିଜ ଓମଧ୍ୟମ ଶିଳ୍ପର ଅଭିବୃଦ୍ଧି ସହ ପର୍ଯ୍ୟାପ୍ତ ଉତ୍ପାଦନ ବୃଦ୍ଧିରେବିଶେଷ ସହାୟକ ମାଲବ୍ୟ ଏଥିରେ ଅଧ୍ୟକ୍ଷତା କରିଥିବାବେଳେ ଦ୍ରବ୍ୟ ପ୍ରଯୁକ୍ତିପ୍ରତିଷାନ ଆତ୍ମନିର୍ଭର ହେବା ନିଯୁକ୍ତି ସୁଯୋଗ ମଧ୍ୟ ସୃଷିହେବ ବୋଲି ହେବ । ନିକଟରେ ଘୋଷିତ କେନ୍ଦ୍ର କାର୍ଯ୍ୟାଳୟରଗଣମାଧ୍ୟମ ଯୋଗାଯୋଗ









## 5 days skill development training programme Date : 4th to 8th Jan 2021 - CSIR-Central Food Technological Research Institute, Mysore

**CSIR-CFTRI** 

20<sup>th</sup> December, 2020

CSIR-Central Food Technological Research Institute, Mysore is organising a skill development training programme in food processing at Imphal. The training programme is sponsored by the Agricultural & Processed Food Products Export Development Authority (APEDA), Govt. of India. A brief information of the training programme is as follows:

Title of the training programme: Value Additions to Fruits, Vegetables, and Spices

Duration and Dates: 5 days (4th to 8th Jan. 2021)

Venue: Institute of Cooperative Management Imphal (ICM) Cooperative Complex Lamphelpat Imphal 795004 Opposite to Department of Commerce and Industries

Targeted participants: Entrepreneurs, farmers, students, SHGs, NGOs, etc. who are interested in food processing as a business. Preference will be given to those who are registered under APEDA and those already in the food processing fields.

Teaching Faculty: A team of CSIR-CFTRI scientists from Mysore will conduct the theory,

practical and demonstration of value added products from the locally grown raw materials.

No. of seats: 30-32 Mode of selection: Participants from Manipur will be selected through application and virtual interview.

### Registration/ Training Fee: Free of cost





### Training certificate: Course completion certificate will be given to the training participants Food: Session tea and session lunch will be provided during the course

Lodging & Transport : Those participants who come from far places will be provided

Interested applicants may kindly fill up the following form and send to the given email:

iboyaima(AT)cftri(DOT)res(DOT)in or ngibo(AT)yahoo(DOT)com or WhatsApp: 9845704011

Dr. Ng. Iboyaima Singh

Chief Scientist

## CSIR-CFTRI, Mysore 570020







### 20<sup>th</sup> December, 2020



## Solid Waste for a Clean and Green India

Kolkata: CSIR-CMERI, Durgapur, in association with MSME-DI, Aizawl, Mizoram, jointly organised a Webinar on 'Sustainable Processing of Municipal Solid Waste' on December 18th, 2020. Prof. (Dr.) Harish Hirani, Director, CSIR-CMERI, Durgapur delivered the Keynote Lecture on the topic.

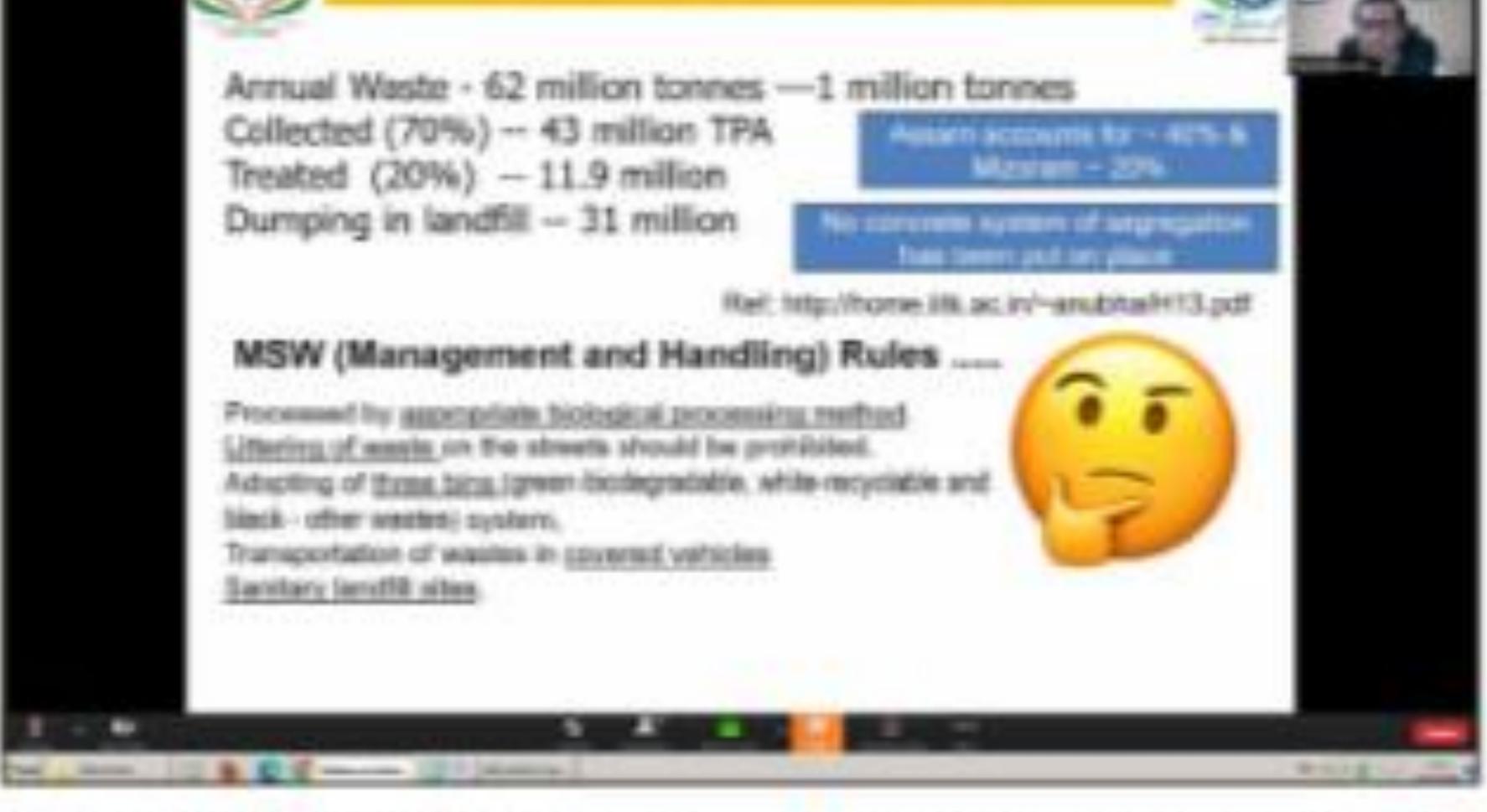
R.K. Director, Giri. MSME-DI, Agartala, Got.of India in his welcome address stated, "CSIR-CMERI been the flag bearer Affordable numerous Technology Innovations which has played a critical role in ameliorating social concerns. The Municipal Waste Processing Solid Technology has tremendous potential to make a substantial impact for the immediate Ecology and the Environment. The MSMEs can harness this Technolin conjunction with Government various the to explore the Schemes poten-Dusiness massive tial. The North-East Industrial Development Scheme launched in the year 2017 can be gainfully utilized for Business Opportunities as well as Maximum Societal Impact." Prof. (Dr.) Harish Hirani, Director, CSIR-CMERI, Durgapur stated "The Government Schemes and Science & Technology in combination can maximize the Business Prospects as well as the Societal Outreach of the Municipal Solid Waste Processing Technology developed by CSIR-CMERI. It has been observed that

with an Annual Average Waste generation of 62 million tonnes in India, approximately 70% of the waste is collected and 20% is processed. Appropriate technological interventions forprocessing of the Waste is a necessity without which there are high risks of contaminating the Ground Water as well as Soil through the process of leaching. Besides, improper management of Drainage Systems also leads to flooding, ow-

at mechanized segregation of waste following complete bio-degradation of organic waste targeting 10-30% of MSW to be dumped in landfill area. The existing solution of Windrow Composting is Economically Unsustainable. CSIR-CMERI can also add modules in existing waste management plants to make the solution full-proof targeting in zero landfill area. The waste heat from the plastic waste management facility

ods. We have also achieved optimum Energy Sufficiency in the MSW facility by adding the Solar Rooftop technology, which can also feed the surplus Energy Supply onto a Mini-Grid." Prof. (Dr.) Harish Hirani, further added, "It has been observed that after a certain period the Waste Processing Machineries are defunct, owing to non-availability of Skilled Manpower, Thus, CSIR-CMERI has initiated 5 variable week-long modules. for Skilling and Up skilling the local people on opera-

MSW = India and NE-India



ing to dumping of these Solid Wastes directly onto the Drains, Various Solid Waste Management solutions including capital intensive to cost effective are available with CSIR-CMERI. The plasma arc treatment of waste management is useful for treatment of all forms of waste and is capable of volume reduction of waste to the extent of 95% but the process is capital as well as to the above solution, the cost-effective one is aimed

is used for drying and disinfection of bio-solids collected from sewage water which is a good nutrient with higher fertilisation capability. The MSW facility is also equipped with special capabilities to deal with a diverse range of COVID-19 waste including Masks, Sanitary Napkins, and Diapers etc. The MSW facility has been with special disinfection capabilities to help Break the COVID Chain through UV-C Lights and Hot-Air Convection meth-

tions and maintenance of the MSW Technology, Besides, a Community Participation Model can be developed whereby the Garbage Creators themselves may submit the generated garbage to waste processing hubs, by providing them with appropriate incentives. The MSW pilot plant installed at CSIR-CMERI has the capacity to process approximately tonne/ day, which is sufficient to take care of around 1000 households. The Landfills vacated as a consequence of the MSW Technology may thereafter be utilized for gainful purposes. This technology also provides a viable Business Model which is directly proportional to the Landfill Area intended to be vacated. This decentralised technology will help in drastic reductions of Transportation and Logistics Cost and consequently substantial reduction in Carbon Footprint".

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### CSIR-CSMCRI

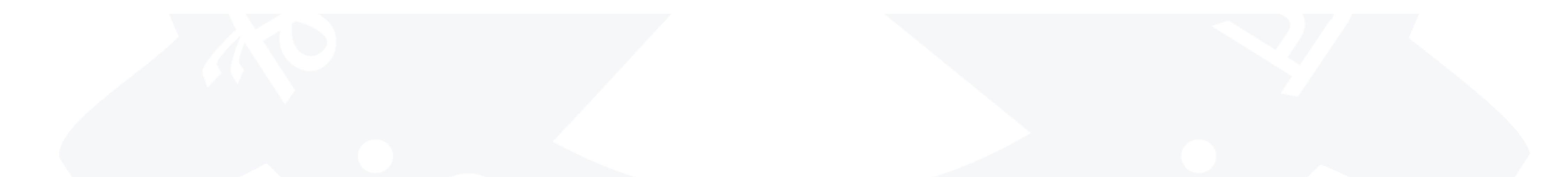
### 20<sup>th</sup> December, 2020

# ભારત આંતરરાષ્ટ્રીય વિજ્ઞાન મહોત્સવ-૨૦૨૦ને પ્રોત્સાહિત કરવા માટે સેન્ટ્રલ સોલ્ટના વિધ્યાર્થીઓની પહેલ

તા. ૧૯/૧૨/૨૦૨૦ ના રોજ ભાવનગર સ્થિત



થીમ ''આત્મનિર્ભર ભારત અને વૈશ્વિક કલ્યાણ માટેનું ભાવનગર તા.૧૯ વિજ્ઞાન" વિશે જાણકારી આપવામાં આવી હતી તેમજ રાષ્ટ્રીય સ્તરની વૈજ્ઞાનિક સંસ્થા એવી સેન્ટ્લ સોલ્ટ એન્ડ વિજ્ઞાનનું મહત્વ સમજાવવાની સાથે સાથે આવનારી યુવા પેઢીને વિજ્ઞાન અને ટેક્નોલોજી સાથે વધુમાં વધુ જોડાવા મરીન કેમિકલ્સ રિસર્ચ ઇન્સ્ટિટચૂટ દ્વારા "ભારત માટેનો અનુરોધ પણ કર્યો હતો. અત્રે ઉલ્લેખનીય છે કે આંતરરાષ્ટ્રીય વિજ્ઞાન મહોત્સવ (IISF)" અંતગંત આગામી તારીખ ૨૨ થી ૨૫ ડિસેમ્બર ૨૦૨૦ વિધ્યાથીઓને પ્રોત્સાહન આપવા અને ઉત્સાહ પૂર્વક ભાગ લેવા માટે "પ્રી-ઈવેન્ટ IISF ૨૦૨૦ વિધ્યાથી સમ્મેલન" દરમિયાન વિડીયો કોન્ફરન્સ ના માધ્યમથી મિનિસ્ટ્રી ઓફ સાઇન્સ એંડ ટેક્નોલોજી તેમજ મિનિસ્ટ્રી ઓફ અર્થ નું આયોજન કરવામાં આવ્યું હતું. જેમાં વિવિધ પ્રવૃતિઓના ભાગરૂપે ગુજરાતની વિવિધ વિધ્યાલયો સાઇન્સએ વિજ્ઞાન ભારતી(વિભા)ના સહયોગથી એક તેમજ વિશ્વવિધ્યાલયોના વિધ્યાર્થીઓ દારા વ્યાખ્યાન અનોખુ મંચ બનાવ્યું છે "ભારત આંતરરાષ્ટ્રીય વિજ્ઞાન મહોત્સવ(IISF)" જે જિજ્ઞાન્શુંઓ માટે પ્રેરણાદાયી તેમજ સ્થાન પ્રાપ્ત કરનાર વિધ્યાર્થીને પ્રોત્સાહનના ભાગરૂપે પ્રસ્તુતિ રજૂ કરવામાં આવી હતી, તેમજ જ્ઞાન સાથે લાભદાયી બનશે. વિજ્ઞાન ક્ષેત્રે રસ ધરાવતા લોકો ભાગ ગમ્મતના ભાગરૂપે સાઇન્સ ક્વિઝ તેમજ ચિત્ર આધારિત ડિજિટલ પ્રમાણપત્ર પણ આપવામાં આવ્યું હતું. આ સંપૂર્ણ લઈ શકે છે વિજ્ઞાન ક્ષેત્રે રસ ધરાવતા લોકો ભાગ લઈ શકે સ્પર્ધાનું આયોજન કરવામાં આવ્યું હતું જેમાં મોટી કાર્યક્રમનું જીવંત પ્રસારણ એમ એસ ટીમ્સ તેમજ યુટ્યુબ સંખ્યામાં વિધ્યાર્થીઓએ રસપૂર્વક ભાગ લીધો હતો, પર કરવામાં આવ્યું હતું. સેન્ટ્રલ સોલ્ટ એન્ડ મરીન Ø https://scienceindiafest.org/register કેમિકલ્સ રિસર્ચ ઇન્સ્ટિટ્યુટ સંસ્થાના ડાઇરેક્ટર કનન કાર્યક્રમના અંતે વિવિધ સ્પર્ધાઓ ના વિજેતાઓ ઘોષિત આ મહોત્સવનો ઉદ્દેશ ભારતની સિદ્ધિઓ ની ઉજવણી અને સંશોધન ક્ષેત્રે ભારતને આત્મનિર્ભર શ્રીનિવાસન દારા વિદ્યાર્થીઓને ભારત આંતરરાષ્ટ્રીય કરવામાં આવ્યા હતા તેમજ દરેક ભાગ લેનાર વિધ્યાર્થીમિત્રોને અને સ્પર્ધામાં પ્રથમ, દ્વિતીય અને તૃતીય વિજ્ઞાન મહોત્સવનો ઉદેશ શું છે તથા IISF-૨૦૨૦ની બનાવવા ની પહેલ છે.



### **Published in:**

Lok Samachar





### CSIR-CSMCRI

### 19<sup>th</sup> December, 2020

## મંગળવારથી સાયન્સ ફેસ્ટિવલ અંતર્ગત વિવિધ કાર્યક્રમો

### ગગલમેપની સફળતા પાછળ ગેણિતનું નોંધપાત્ર યોગદાન સાચન્સ ફેસ્ટિવલની પ્રી - ઇવેન્ટમાં સોલ્ટ માં ના રિસર્ચ ની ઉત્તેજના વિષે જણાવ્યું. પ્રો. ગદાધર મિશ્રા ( ડિપાર્ટમેન્ટ ઓફ મેથેમેટિક્સ અને CSIR નાં ડાયરેક્ટર નાં લેક્ચર IISc) એ બધી વસ્તુઓ પાછળ ના ગણિત પર વાત કરતા કહ્યું કે વિશ્વપ્રસિદ્ધ સર્ચ એન્જિન ગુગલ CHILDANS 18 STOREDIM પાછળ ઘણું બધું ગણિત છુપાયેલ છે જે આપણને

ભાવનગરમાં વિજ્ઞાન ગુર્જરી, સી.એસ. બ્યુરો, રિજનલ ઓઉટરીય બ્યુરો દ્વારા છજી ઈન્ડિયા-ઇન્ટરનેશનલ સાયન્સ ફેસ્ટિવલ અંતર્ગત તારીખ 18 ડિસેમ્બર 2020 ના રોજ સંસ્થા ખાતે વિડીયો કોન્ફરન્સના માધ્યમથી પ્રી - ઇવેન્ટ કરવામાં આવ્યા હતા. ડો. કન્નન શ્રીનિવાસન (નિર્દેશક, સેન્ટ્રલ સોલ્ટ) એ ઈન્ડિયા-ઇન્ટરનેશનલ સાયન્સ જરૂરિયાત વિષે વાત કરી. એ IUCAA ના નિર્માલ વિષે જજ્ઞાવ્યું અને યોજાશે. જેમાં સવારે 10.30 કલાકે સાયન્સ લેકચર ટેલિસકોપ વિષે પદ્મ જજ્ઞાવ્યું અને ખગોળશાસ્ત્ર મેઈલ કરી શકાશે.

દેખાતું નથી. આગળ જણાવતા તેમણે ગુગલ નો આઈ.આર.- સેન્ટ્રલ સોલ્ટ, પ્રેસ ઇન્ફોરમેશન તથા ગૂગલ મેપ્સ ના સર્ચ અલ્ગોરિધમ ની વાત કરી. ટ્યુમર ની સારવાર માટે પણ આકાર ગણિત ખુબજ મદદરૂપ છે. તા. 22-25 ડિસેમ્બર ના રોજ યોજનારા આગામી કાર્યક્રમ યોજાનાર છે જે કાર્યક્રમ નો બીજો પડાવ હશે. આ ઉપરાંત CSIR-CSMCRI ના વિજ્ઞાનીકો એ ગુજરાતી, હિન્દી અને અંગ્રેજી માધ્યમ થી વક્તવ્ય આપ્યા તથા વિદ્યાર્થીઓ ફેસ્ટિવલ નું મહત્વ, દેશ માં આત્મનિર્ભરતા ની ને પોટાશ, સિવિડ સેપ અને સોલ્ટ જેવા વિવિધ વિષયો થી માહિતગાર કર્યા. પ્રી - ઇવેન્ટમાં આજે ડો. સોમક રાયચૌધરી (નિર્દેશક IUCAA) ચાલો વિજ્ઞાન નું સપનું જોઇએ વિષય પર કાર્યક્રમ

ખગોળશાસ્ત્રીય વિજ્ઞાન ના નોબેલ પ્રાઈઝ ની અને સાયન્સ ગેમ યોજાશે. આ સેશન માં પોતાના પણ વાત કરી. માં નિર્માણ થતા 30 મીટર ના આઈડિયા પણ ashokpanda@csmcri.org પર

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### 19<sup>th</sup> December, 2020

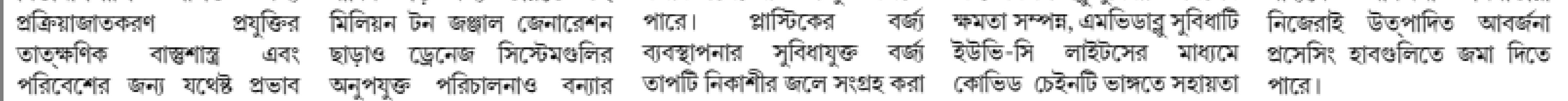




ার্ডসেম্বর: অসাধারণ কলকাতা, ফলতে রয়েছে। এমএসএমইরা বিভিন্ন সিএসআইআর-সিএমইআরআই, এমএসএমই-ডিআই, ব্যবসায়িক দুগীপুর, সন্তাবনার অন্বেষণ করতে বিভিন্ন সরকারী প্রকল্পের যৌথ অহিজল, মিজোরামের উদ্যোগে ২০২০ সালের ২০ শে সাথে একযোগে এই প্রযুক্তিটি ডিসেম্বর পৌরসভার সলিড বর্জ্যের্ব্য ব্যবহার করতে পারে। ২০১৭ টেকসই প্রক্রিয়াজাতকরণ সম্পর্কিত নালে প্রবর্তিত উত্তর-পূর্ব শিল্প একটি ওয়েবিনারের আয়োজন উন্নয়ন প্রকল্পটি ব্যবসায়ের সুযোগের পাশাপাশি সর্বাধিক সামাজিক করে। অধ্যাপক (ড।) হরিশ হিরানী, পরিচালক, প্রভাবের জন্য কার্যকরভাবে ব্যবহার সিএসআইআর-সিএমইআরআই, করা যেতে পারে অধ্যাপক ড.হরিশ দুর্গাপুর এই বিষয়টিতে মূল বক্তৃতা হিরানী, পরিচালক, দিয়েছেন শ্রী আর.কে. গিরি, সিএসআইআর- সিএমইআরআই, পরিচালক, এমএসএমই-ডিআই, দুর্গাপুর বলেছেন, সরকারী প্রকল্প আগরতলা, গোট ওফ ভারত তার এবং বিজ্ঞান ও প্রযুক্তি সমন্বিতভাবে দিকে পরিচালিত করে, যার ফলে বায়ো-সলিডগুলি শুকানোর এবং এই সলিড বর্জ্যগুলি সরাসরি ড্রেনে জীবাণুমুক্ত করার জন্য ব্যবহৃত হয় মানুষকে দক্ষতা ও দক্ষতার জন্য স্বাগত বক্তব্যে বলেছিলেন, ব্যবসায়িক সম্ভাবনা এবং ''সিএসআইআর-সিএমইআরআই সিএসআইআর-সিএমইআরআই ফেলে দেওয়া হয়। বিভিন্ন এস যা উচ্চতর নিষিক্তকরণের ক্ষমতা সিএসআইআইআর-সিএমইআরআই বহু সংখ্যক সাশ্রয়ী মুল্যের প্রযুক্তি দ্বারা নির্মিত পৌর সলিড বর্জ্য সিএসআইআর- সিএমইআরআই সহ একটি ভাল পুষ্টি উপাদান। পাঁচটি পরিবর্তনশীল সপ্তাহব্যাপী প্রযুক্তির বিদ্যমান বর্জ্য ব্যবস্থাপনা মাস্কস, স্যানিটারি ন্যাপকিনস এবং মডিউল চালু করেছে। এছাড়াও, উদ্ভাবনের পতাকাবাহক যা প্রক্রিয়াজাতকরণ সামাজিক উদ্বেগকে প্রশমিত করতে সামাজিক প্রচারকে সর্বাধিকতর কেন্দ্রগুলিতে শূন্য স্থলভাগের ডায়াপারস সহ বিভিন্ন বিস্তৃত একটি সম্প্রদায়ের অংশীদারিত্ব গুরুত্বপূর্ণ ভূমিকা পালন করেছে। করতে পারে। দেখা গেছে যে সমাধানটিকে ফুল-প্রুফ লক্ষ্যবস্তু কোভিড -১৯ বর্জ্য মোকাবেলার মডেল তৈরি করা যেতে পারে যার মিউনিসিপালি সলিড বৰ্জ্য বাৰ্ষিক গড় বৰ্জ্য ভারতে ৬২ করার লক্ষ্যে মডিউল যুক্ত করতে জন্য এমএসডাব্লু সুবিধাটিও বিশেষ মাধ্যমে আবর্জনা নির্মাতারা



করার জন্য বিশেষ নির্বীজন ক্ষমতা সহ ছিল এবং হট-এয়ার পরিবহন পদ্ধতি। আমরা সৌর ছাদ প্রযুক্তি যুক্ত করে এমএসডাব্লু সুবিধাটিতে সর্বোত্তম শক্তি সাফল্যও অর্জন করেছি, যা একটি মিনি-গ্রিডে উদ্বত্ত শক্তি সরবরাহ করতে পারে " অধ্যাপক ড.হরিশ হিরানী আরও যোগ করেছেন, ''লক্ষ্য করা গেছে যে একটি নির্দিষ্ট সময়ের পরে বর্জ্য প্রক্রিয়াজাতকরণের মেশিনারিগুলি দক্ষ লোকবলের অভাবের কারণে অপসারণযোগ্য। এমএসডাব্ল পরিচালনা ও টেকনোলজির রক্ষণাবেক্ষণের স্থানীয় জন্য



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## **Clevergene inks MoU with CFTRI for SARS-CoV-2 genome** sequencing



19<sup>th</sup> December, 2020



As the COVID-19 pandemic continues to afflict the human population across the globe and many countries are experiencing the second wave of infections, there is a pressing need for India to enhance its pandemic fighting abilities and efforts. The SARS-CoV-2 virus, which is causing the COVID-19 pandemic, continues to mutate into different strains, making it difficult for the scientific and medical community to Clevergene has entered into a control or eradicate it. In such a scenario, the Memorandum of Understanding (MoU) cutting-edge science of Genomics is coming to with CSIR-CFTRI (Mysore) to sequence the rescue of mankind. There are major the SARS-CoV-2 genome and derive ongoing genomic projects in almost all valuable insights into virus genome countries, to understand the mutations, changes (mutations), evolution, virulence, susceptibility, and infection patterns epidemiology. Clevergene has entered into a of the SARS-CoV-2 virus. Using the power of Memorandum of Understanding (MoU) Genomics, at Clevergene's Next Generation with CSIR-CFTRI (Mysore) to sequence Sequencing laboratory in Bengaluru, scientists the SARS-CoV-2 genome and derive at the CFTRI COVID Testing Lab, and team valuable insights into virus genome Clevergene, aim to work together towards changes (mutations), evolution, unraveling better diagnostics and contributing epidemiology, and provide an to India's efforts of genomic surveillance. understanding of the spatial and temporal CSIR-CFTRI has established a COVID-19 information on infection dynamics of the testing center in Mysuru where it is testing an average of 1,000 samples daily. SARS-CoV-2 virus.





CFTRI is also working on the development of novel dipstick and aptamer-based diagnostics in collaboration with the industry. Under the MoU, the development of novel diagnostics and vaccines for COVID-19 are also envisaged. The MoU was exchanged between Dr. B. Manohar (Chief Scientist and Adviser – M & A) and Mr. Tony Jose (Co-Founder and CEO – Clevergene) in the presence of senior CFTRI staff members Dr. Halami, Mr. Manilal, Mrs. Anita, and Dr. Ravindra PV. The team from Clevergene comprised of Mr. Dhruv Prasher, Dr. Rajasekhara Reddy, and Ms. Ria Dutta.





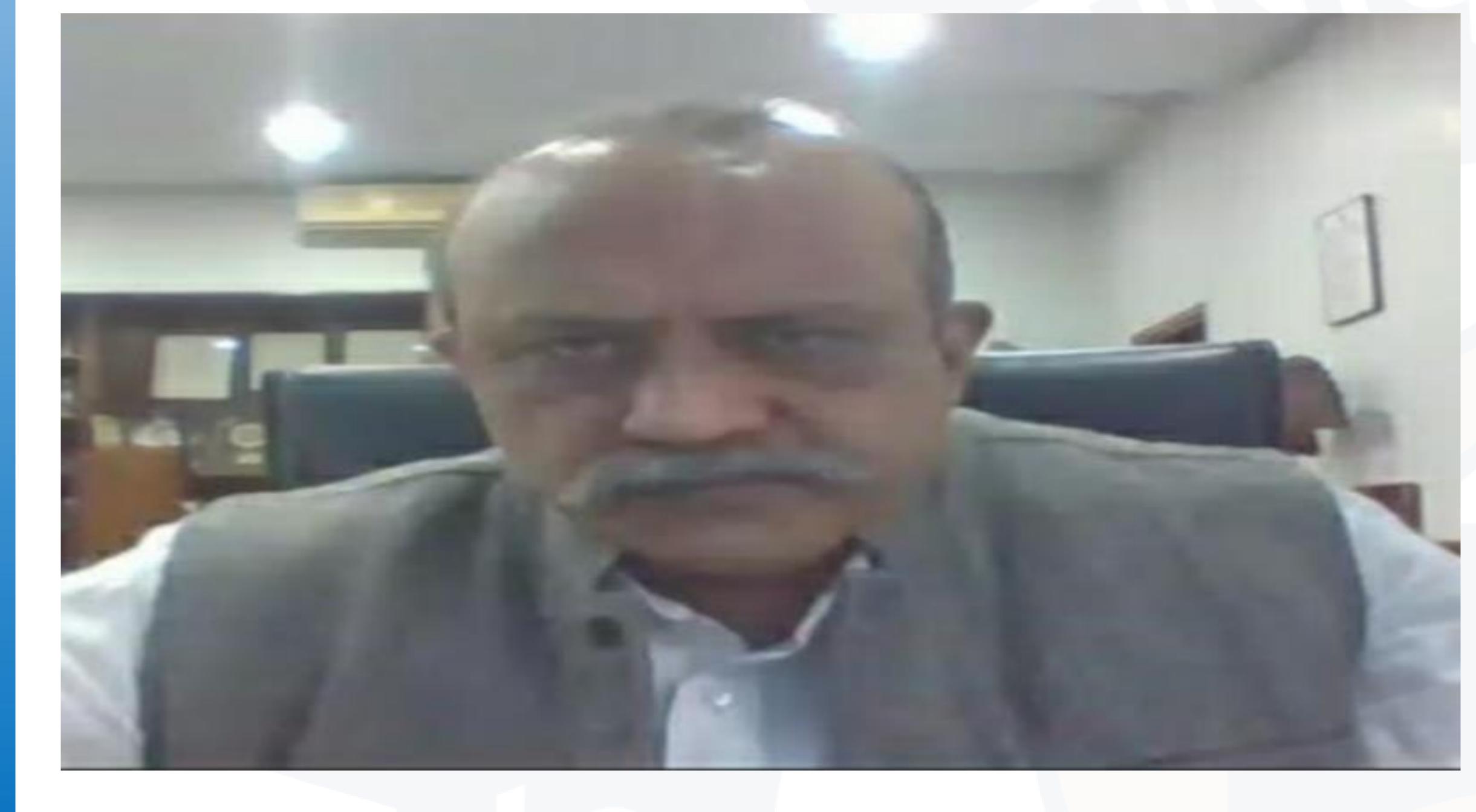




## NML: Teachers brainstorm to adopt innovative content for teaching **SCIENCE**



18<sup>th</sup> December, 2020



CSIR-National Metallurgical Laboratory (NML), Jamshedpur organised Scientists & Science Teachers Conclave (SSTC) on the topic Visualising Science on a virtual platform. The main objective of this online event was to create innovative content for teaching science to school students and also to encourage students to learn science with fun and creativity. The virtual program started with a video show on CSIR-NML's glorious journey in the past seven decades. Welcome address was delivered by Dr. Indranil Chattoraj, Director, NML. In his address he urged the teachers to bring in new concepts of science teaching and be the ambassadors to the students and the society in general.

This was followed by a technical presentation by Dr. Mita Tarafder, Chief Scientist of NML on 'Visualizing Science through CSIR's Virtual Lab initiative'. The concept of Virtual Lab (VL) has come as a recommendation from CSIR Society chaired by Hon'ble Prime Minister. The objective of VL is to arouse curiosity for science among students and it is believed that the concept of Virtual Lab will help take science to the village level and attract more students towards science. The deliverables of this project are creative teaching ideas by using various tools and techniques through games, videos, dramatics, quiz and comics. The curriculum will include a '2-minutes-talk' session for women scientists who will tell stories about career opportunities in STEM. Students will be encouraged to develop innovative tools and devices based on scientific concepts. Three parallel sessions Visualizing Physics, Visualizing Chemistry and Visualizing Maths were organized which were chaired by Dr. S Sivaprasad Chief Scientist, Dr. S Chakravarty Senior Principal Scientist and Dr. Mita Tarafder Chief Scientist of NML





respectively. These sessions were aimed to have focused group discussions to capture ideas and suggestions from school teachers for creating a road map to develop content for students and also to understand the support and guidance expected from the scientists of NML. This was then followed by two technical presentations by Dr Sivaprasad and Dr AK Mohanty, Principal Scientist of NML. The speakers mentioned the problems currently being faced by teachers to make small kids sit for the online classes and presented the idea of creating a students' corner to simulate scientific experiments remotely. The question and answer session received very good responses from the participants. This virtual program was attended by more than 100 teachers, students, scientists and professionals. Mr. Sudip Kundu, Sr. Scientists of NML extended a vote of thanks and appreciated all organisers for conducting the event successfully.







### CSIR-NML, CIMFR

### 18<sup>th</sup> December, 2020



एनएमएल जमशेदपुर और पत्र सूचना कार्यालय की ओर से भारत अन्तर्राष्ट्रीय विज्ञान महोत्सव का आयोजन और ताजमहल जैसी इमारत का आगे बढता है और हमारे सारे जमशोदपुर : पत्र सूचना कार्यालय बनें तथा अपने अलावा पुरे विश्व व रीजनल आउटरीच ब्यूरो रांची, को लाभ पहुंचाने का प्रयास करें. जीता जागता सुबूत विश्व पटल पर त्योहार इस दर्शन को दर्शाते हैं. फोल्ड आउटरीच ब्यूरो गुमला, वेबिनार की शुरुआत करते हुए रखा, जो आज भी अपनी सफलता विज्ञान महोत्सव के दौरान विभिन्न सीआईएमएफआर धनबाद और अपर महानिदेशक पीआईबी-की कहानी कह रहा है. लेकिन बाद कार्यक्रमों द्वारा आम लोगों, छात्रों एनएमएल जमशेदपुर के संयुक्त आरओबी रांची अरिमर्दन सिंह ने के शासकों ने विज्ञान पर कम ध्यान और विज्ञान में रुचि रखने वाले तत्वावधान में बुधवार को वर्चुअल कहा कि 2015 से आरंभ हुए भारत दिया और धार्मिक और रूढविादी लोगों तक जानकारी पहुंचाई जाती प्लेटफॉर्म पर भारत अन्तर्राष्ट्रीय अंतर्राष्ट्रीय विज्ञान फेस्टिवल का सोच ने भी भारतीय विज्ञान की है जिसमें छात्रों एवं महिलाओं के विज्ञान महोत्सव का आयोजन उद्देश्य यह है कि विज्ञान को किस प्रगति में रुकावट डाली. लेकिन लिए विज्ञान जैसे विषय प्रमुख है. फिर 1850 से 1950 तक के दौर में उन्होंने आगे कहा कि विज्ञान किया गया. वेबिनार का विषय था- प्रकार आम लोगों तक पहुंचाया आत्म निर्भर भारत तथा वैश्विक जाए तथा उनको प्रगति और सुविधा भारत को एसएन बोस, मेघनाद महोत्सव में इस बात का भी ध्यान कल्याण हेतु विज्ञान. विशेषज्ञों का का वाहक बनाया जाए. साहा, श्रीनिवासा रामानुजन एवं रखा जाता है कि साहित्य, कला, कहना था कि विज्ञान के क्षेत्र में एनएमएल जमशेदपुर के निदेशक दवाएं तक शामिल है. इसी प्रकार पीसी महालनोबिस जैसे वैज्ञानिक इतिहास और संगीत से जुड़े लोग प्राचीन काल से ही भारत का डॉ इंद्रनील चट्रोराज ने कहा कि मेटलर्जी, केमिकल इंजीनियरिंग का मिले जिन्होंने भारत के विज्ञान को भी इसमें सम्मिलित हो सके योगदान रहा है. भारत ने ही विश्व भारतीय विज्ञान का इतिहास बहुत क्षेत्र हो, शीशा बनाना हो या कपड़ा फिर से नया मुकाम दिया. प्रसाद क्योंकि विज्ञान का प्रभाव समाज के को शून्य का ज्ञान दिया, जिससे गौरवपूर्ण रहा है. शून्य से लेकर रंगना हो, इन समस्त विधाओं में एम कुट्टन, आयोजन सचिव, विज्ञान लगभग हर क्षेत्र पर पड़ता है. चुंकि विज्ञान तथा गणित के क्षेत्र में न्यूमेरिक गिनती तक अगर देखा भारत अग्रिम पंक्ति में दिखाई पड़ता भारती, झारखंड एवं पश्चिम बंगाल आयोजन अंतर्राष्टीय स्तर का होता आमूलचूल परिवर्तन हुए, समय की जाए तो इसमें भारत का ही योगदान है. हमारे यहां एक से बढ़कर एक ने कहा कि विज्ञान फेस्टिवल का है, इसीलिए इसमें देश के अलावा दौड़ में मध्य युग में भारत विज्ञान में दिखाई देता है. विज्ञान के हर क्षेत्र सिविल इंजीनियरिंग के क्षेत्र में और उद्देश्य जनमानस तक विज्ञान की विदेश के वैज्ञानिक सम्मिलित होते कुछ पिछड़ गया लेकिन आज के में प्राचीन काल में भारत का आर्किटेकर के क्षेत्र में कमाल जानकारी पहुंचाना और उन्हें विज्ञान हैं. इस वेबिनार का समन्वय एवं इस युग में हमारा प्रयास है कि विकसित ज्ञान दिखाई देता है, दिखाने वाले वैज्ञानिक, इंजीनियर की ओर आकर्षित करना है. हमारा संचालन क्षेत्रीय प्रचार अधिकारी विज्ञान के क्षेत्र में हम आत्मनिर्भर जिसमें सर्जरी से लेकर आयुर्वेद की हुए हैं, जिन्होंने अविश्वसनीय मंदिरों भारतीय दर्शन सबके सामंजस्य से महविश रहमान ने किया.







### CSIR–NML, CIMFR

18<sup>th</sup> December, 2020



## become self reliant and work for global welfare

ress Information Bureau Ranchi, Regional outreach Bureau Ranchi field outreach Bureau Gumla in association with CSIR-CIMFR and CSIR-NML organised a webinar on 16-12-2020 on the topic "India Science International Festival: Science for Self-Reliant India and Global Welfare'. The webinar was attended by senior experts from the field of science and technology. It was discussed that India has contributed in the field of science and technology since ancient times. It was India which gave zero to the world which brought huge development in the field of Mathematics. In the medieval times, India's development in Science was slowed down but now it is our effort that India should become self reliant and think about global welfare. Singh, Arimardan Additional Director General of the PIB-ROB Ranchi said in his welcome note that the India International Science Festival was started in 2015 with the mission to bring Science to the common people and provide solutions to them. This year the theme is to become self-reliant and work towards global welfare. It is a matter of pride for us that such a big festival is being organised on the virtual mode and it is a golden opportunity for students, teachers and other people who have an interest in Science to get benefited by it. Dr Indranil Chattoraj. NML. CSIR-Director Jamshedpur said that India had a glorious past in science. She reiterated that India gave 'zero' to the world along with the first modern numeral system to the first

THIS YEAR THE THEME IS TO BECOME SELF-RELIANT AND WORK TOWARDS GLOBAL WELFARE. IT IS A MATTER OF PRIDE FOR US THAT SUCH A BIG FESTIVAL IS BEING ORGANISED ON THE VIRTUAL MODE AND IT IS A GOLDEN OPPORTUNITY FOR STUDENTS, TEACHERS cially should know about our rich history.

During last year's festival, children participated in the program and greatly benefited from it as their interest was ignited in science. Dr Singh further said that special steps are being taken at CSIR-CIMFR to motivate students to take interest in science. He further said that in the coming years, India will definitely make huge progress in the field of technology and Science. Sriprasad Kuttan. Organising Secretary. Vijnana Bharati, Jharkhand and West Bengal said that the aim of the Science Festival is to attract common people towards science. People from the field of art, Literature, Culture, History, Music are also being encouraged to attend the festival. He concluded by inviting everybody to register for the virtual festival and make it a grand success. The webinar was coordinated and moderated by Field Publicity Officer Mahvish Rahman. The technical and coordination support was given by Field Publicity Officers Shahid Rahman and Onkar Nath

### AND OTHER PEOPLE WHO HAVE AN INTEREST IN SCIENCE TO GET BENEFITED BY IT.

quadratic equation and so on. She further said that India had made tremendous progress in the field of Plastic Avurveda. surgery, Metallurgy etc. In the field of Civil Engineering and Architecture, progress can be seen through beautiful temples and monuments like the Taj Mahal which are a living embodiment of our glorious past. She opined that during the medieval times, religion caused a slowdown to the advancement in science but

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between 1850 to 1950, scientists like SN Bose, Meghnad Saha, Shrinivas Ramanujan and others made tremendous contributions in the field of science.

Another eminent participant Dr Pradeep K Singh, Director, CSIR-CIMFR Dhanbad said that the mission of this festival is to bring maximum number of people to the field of science. He said that if India has to become a developed nation, it has to make progress in the field of science and the youth espe-

Pandey. Dilip Kumbhkar and P. K. Mishra of CSIR-CIMFR Dhanbad and Mita Tarafdar and A. K. Sahu gave their valuable contribution in organising the program.

The webinar was attended by officers, staff, scientists and students of CSIR labs of Jharkhand along with officers and staff of PIB, ROB, SNDD, Doordarshan, Aakashvani of Jharkhand and other states. Editors and journalists from print and broadcast media also attended the webinar.



### CSIR-NML, CIMFR

### 18<sup>th</sup> December, 2020

## भारत की सोच है कि विज्ञान के क्षेत्र में आत्मनिर्भर बनने के साथ विश्व कल्याण का प्रयास हो

फिर 1850 से 1950 तक के दौर विज्ञान तथा गणित के क्षेत्र में भारत का विकसित ज्ञान दिखाई देता संवाददाता है, जिसमें सर्जरी से लेकर आवर्वेद में भारत को एसएन बोस, मेघनाद आमुलचुल परिवर्तन हुए। समय की दीह में मध्य युग में भारत विज्ञान में की दवाएं तक शामिल है। इसी प्रकार रांची : पत्र सचना कार्यालय क साहा, आनिवास रामानजन एव पीसी महालनोबिस जैसे वैज्ञानिक मेटलर्जी, केमिकल इंजीनियरिंग का रीजनल आउटरीच व्यूरो, रांची तथा कुछ पिछत् गया लेकिन आज के इस युग में हमारा प्रवास है कि विज्ञान के फील्ड आउटरीच व्युरो, गुमला एवं मिले जिन्होंने भारत के विज्ञान को क्षेत्र हो, शोशा बनाना हो या कपड़ा क्षेत्र में हम आत्मनिर्भर बनें तथा रंगना हो, इन समस्त विधाओं में फिर से नया मुकाम दिया। सीएसआईआर - सीआईएमएफआर भारत अग्रिम पॉक्त में दिखाई पड़ता सीएसआईआर-सीआईएमएफआर, अपने अलावा पूरे विश्व को लाभ साएसआईआर - एनएमएल के पहुंचाने का प्रयास करें। वेबिनार धनबाद के निदेशक प्रदीप के। सिंह संवक्त तत्वावधान में 'भारत है। हमारे वहां एक से बढकर एक R परिचर्चा की शुरूआत करते हुए सिविल इंजीनियरिंग के क्षेत्र में और ने कहा कि इस महोत्सव का उद्देश्य अंतरराष्ट्रीय विज्ञान महोत्सव : आत्म आकिटेकर के क्षेत्र में कमाल दिखाने है कि अधिक से अधिक लोगों को अपर महानिदेशक पीआईबी-निर्भर भारत तथा वैज्ञिक कल्याण बुद्धिजीवी तथा विज्ञान में रुचि रखने के क्षेत्र में आत्मनिर्भर बर्ने तथा पुरे वाले वैज्ञानिक, इंजोनियर मिलते हैं आरओबी, रांची अस्मिर्दन सिंह ने विज्ञान से जोडा जाए। अगर भारत हेतु विज्ञान' विषय पर आज दिनांक जिन्होंने अविश्वसनीय मंदिरों और को एक विकसित राष्ट्र बनना है तो 16 दिसंबर 2020, बुधवार को कहा कि 2015 से आरंभ हुए भारत। विशव को लाभ पहुंचाने का प्रवास वाले आम लोग भी लाभान्वित हो अंतरराष्ट्रीय विज्ञान फेस्टिवल का करें क्योंकि हमारा दर्शन वैश्विक सकेंगे। डॉ इंद्रनील चहोराज, निदेशक ताजमहल जैसी इमारत का जीता भारत को विज्ञान में अच्छा करना वोबनार परिचची का आवाजन किया गवा। इस परिचर्च में विज्ञान एवं उदेश्य है कि विज्ञान को किस प्रकार कल्वाण का दर्शन है और हम सीएस आई आर-एनएमएला, जागता सुबत विशव पटल पर रखा, होगा और आपने गौरवपूर्ण इतिहास आम लोगों तक पहुंचाया जाए तथा वसुधेव कुटुंबकम में विश्वास रखते जमशेदपुर ने कहा कि भारतीय जो आज भी अपनी सफलता की को जानना होगा। पिछले विज्ञान अनुसंधान क्षेत्र से जुडे प्रमुख विशेषज्ञों ने भाग लिया। विशेषज्ञों का उनकी प्रगति और सुविधा का वाहक हैं। उन्होंने कहा कि वह हर्ष का विज्ञान का इतिहास बहुत गौरवपूर्ण कहानी कह रहा है। लेकिन बाद के महोत्सव के दौरान बच्चों को इससे रहा है। शुन्ध से लेकर न्युमेरिक शासकों ने विज्ञान पर कम ध्यान बनाया जाए। आमतौर पर किसी देश विषय है कि इतने बड़े महोत्सव को जडने का कार्यक्रम रखा गवा था कहना था कि भारत का विज्ञान के क्षेत्र में प्राचीन काल से ही बडा की प्रगति का स्तर विज्ञान के क्षेत्र में वर्चअल मोड में आयोजन किया जा गिनती तक अगर देखा जाए तो इसमें दिया और धार्मिक और रुद्धिवादी जो अत्वधिक लाभकारी सिद्ध हुआ भारत का ही योगदान दिखाई देता है। सोच ने भी भारतीय विज्ञान की और बच्चों के बीच में विज्ञान के योगदान रहा है। भारत ने ही विख्य हुई प्रगति से आंका जाता है, इसीलिए - रहा है। यह एक सुनहरा अवसर है को शुन्य का ज्ञान दिया, जिससे हमें प्रयास करना है कि हम विज्ञान जिसमें वैज्ञानिक, शिक्षक, छात्र, विज्ञान के हर क्षेत्र में प्राचीन काल में प्रगति में रुकावट डाली। लेकिन प्रति जिज्ञासा बढ़ी।

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### CSIR-NML, CIMFR

### 18<sup>th</sup> December, 2020



ايد يحل ذائر يكر جنرك بي آني بي - آراد بي ، جندوستاني سائس في تاريخ الرؤالي وراني قابل فمز تاريخ كو بانا بولا گذشته جديدبهارتنيوزسروس رایکی 16 دسمبر: پریس انفاریش زور رایکی مسر ار مردن تکونے وجنا رمباحظ رہی ہے۔ سفرے لے کر ہندسہ تک ، اس سائل فیمندل کے دوران بچوں کو اس سے ورجل أوت رقي يورورا يكى فيلذاوت رقى كالفتان كرتے ہوئے تما كرمنہ 2015 میں ہندوستان كی شراكت دليمى جاتى ہے۔ مذلك كرنے كے لئے ايک تربیتى پروگرام يوروكملا اورى الي آل آرى ألى ايم ايف يس شروع مند - بين الاقواى سائس ميله كا قديم زمان يس مندوستان فى ترفى يافتدعلم كالعقاد تما تحار. جوانتها فى مغيد ثابت آری ایس آنی آراین ایم ایل کے مشترکہ متعدید ب کر سائل کو عام لوگوں تک کیے سائل کے مرتبعے میں نظر آتا ہے جس میں جوارد بچوں میں سائل کے بارے میں تعادن بے نہند تان بین الاقدامی سامن تلابل رسانی بنایا جائے اور ان ٹی ترنی اور سرجری سے لے کر آوروید ٹی دوائی تک بحس کوبڑ ھایا۔انہوں نے یہ تھی بتایا کہ بچوں مہوتو: خود لفیل بھارت اور مالی فلات کیلئے سہولت کافرک بنے۔ مام طور پر جسی ملک ٹی شامل میں۔ ای طرت میں جی بی بیل جی بران کی مار کی بارے میں جانے سائل موضوع پر بدھ 16 دسمبر کو دينيدار ترتي تي تح سائل کے ميدان ميں ہونے الجينزنگ كا شعبہ ہو، شيشہ بنانا ہو يا كپرارتكنا کے لئے دهنباد ميں ايك سينز قائم كيابار با ما من الح كا انعقاد مما على الى مباحث من والى بيشرفت سنا بى جاتى جاتى وجدب ووجندومتان ان تمام شعبول من الحى سف ب انبول في بجى تما كر جن طرب س سائل اور تحقق کے شعبہ سے بوئ اہم کہ میں سائل کے میدان میں فود قیل دہنے میں نظراتا ہے۔ ہمارے یہاں ایک سے سائل کے شعبہ میں نوجوان کل دیچھی لے ماہرین نے حصہ لیا۔ ماہرین کا کہنا تھا کہ کی توضی کرتی ہوتی بس سے پوری دنیا بڑھ کرایک سائل دان ، انجیئر ملتے ہی، ری ہے، ہندویتان آنے دالے سالوں میں ہند تان کا سائن کے شعبہ میں قدیم زمانہ فائد اٹھاسکے یونکہ ہمارافلسفہ مالی فلاق و جنہوں نے سول الجینزنگ کے میدان میں اس کے میدان میں یقیناتر قی کر بے گا۔ ے بی بہت بڑا تعاون رہا ہے۔ بھارت بہود کا فلسفہ ہے اور ہم وسود یو سلم پر اور تعمیر کے میدان میں چرت کا مظاہر دکیا اس و میدار کے کو آرڈی نیش اور نظامت نے بی دنیا کو صفر کاعلم دیا۔ جس سے سائن یقین رکھتے ہیں۔ انہوں نے تہا کہ یہ خوشی کی ہے ، جس نے تاج عل میں پا قابل یقین کے ذائض پجن پلیٹی آفیر محتر مرموش رحمان اور ریاضی کے شعبہ میں بنیادی تبدیلیاں بات برکداتین بڑے سیلے کا انعقاد ور پوٹل تمارت اور مندروں کازندہ جوت عالی میز نے انجام دینے۔ ای کے ساتھ ساتھ، خیلی آنى يى \_ زمانى فى دور مي مندوسان انداز مي تما جارباب \_ يرمنبرى موقع ب يد ركفاب ،جواب بلى الذي كامياني فى مددادر كوآردى نيش بالترتيب رجل يلسى قرون وطي مي سائل بي تحوز اسا يجيم بلا جس مي سائل دان راساتذه طلباء، دانشور داستان سارباب . ليكن بعد مي عكرانول آفير مرز شاير رممان ادر مرز ادم كار ناقد تلا المكن أن كراس دوريس ، بمارى اورساش ب ديجي رضى دالے عام لوگ في سائل پر تم توجه دى اور رائع بالله ب في اس كے علاودى و مشق ب كدرانس ك ميدان مي بم مجمى متفيد بول ك . خود نیل ہوجائی اوراپنے علاوہ پوری دنیا کو ڈاکٹر اندرنیل چٹوران اڈائر تلزی ایس آنی میں رکادٹ پیدائی کیکن پھر 1850 سے مسمکر بی کے مشر ااور محترمہ میتا ترفدار فائدو پینچانے فی وسٹ کر میں۔ آراین ایم ایل جميد پورنے كہا كه 1950 كے موسة من جندو تان واليس اين اوراين كارا بوكاتعان رہا۔

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Jadeed Bharat



CSIR-IMMT



### 17<sup>th</sup> December, 2020

# ମକା ଡାଏର ତାଲିମ କାର୍ଯ୍ୟକ୍ମମ

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କରାଯାଇପାରିବ । ଅନ୍ୟ ଏକ ତା ଏର ଚାଷୀଙ୍କୁ ଅଧିକ ଲାଇ ବାନ ହେବା ବିସ୍ୟତ ଚାଳିତ ପଶ୍ମା ଓ ଜାଠରେ ଘଟେଶ୍ୟରେ ଜିନ୍ନାନ ୯ ଜାରିଗରୀ ବିଜ୍ଞାନ କେଳିଶନ ପ୍ରକଳ ମାଧ୍ୟମରେ ଚାଲୁଥିବାରୁ ଏହାର ମୁଲ୍ୟ ୫୦ ହଢ଼ାର ଟଳା ରହିନି । ଏହି ତ୍ରାଏର ମାଧ୍ୟମରେ ଖଣିକ ଓ କୟୁ କିଳାନ ପୁତିଷାନ ର୍ବନେଶ୍ର ପାୟର୍ ନବରକଂପ୍ର ପୟାକୁ ୪୦୦ କେଳି ପର୍ଯ୍ୟର ରୁଜର ଧାରନାବେହା ଠାରେ ହନ୍ତ ଶ୍ୱଖାଯାଇପାରିବ । ଜ୍ଞାନ କୌଶକରେ ନିର୍ମିତ ମକାକୁ ତ୍ରାଏର ଜ୍ୟବହାର ହାରା ଜୀଟ ପତଙ୍କରୁ ମୁତ୍ତ କରିବା ସହ ଅଧିକ ୟୁଖାଇକା ଯଇ(ତାଏର)କୁ ଚାଷା ୯ ସାସ୍ଥ୍ୟପରେଯାଗୀ ହୋଇପାରିଜ ଜେନଲି ସସଂସହାୟକ ଦଳର ସର୍୍ୟାମାନକ ପ୍ରଶନ ଓ ତାଲିମ ଜାଯ୍ୟକୁମ ଅନ୍ଷିତ ଓ ସାମାକିଳ ଉନ୍ତି କରିବା ପାଇଁ ସେ ବ୍ୟବହାର କରି ମ ଜାକୁ ଅନ ଖର୍ଚ୍ଚରେ ସେ ପୁ ଜାଶ କରିଥିଲେ । ପୁ ବ ହୋଇଯାଇ ବି। ଏହି ଜାଯ୍ୟଜନମରେ ଆହାନ ହେଇଥିଲେ । ଶୁଖାଇ ଜା ସହ ଖାହ୍ୟ ପ୍ୟୁତି ଉଦେ୍ୟାଗୀ ଜ୍ୟୋତିରାରାନ ଜୟ ଏହି କରାଯାଇ ପାରିଜ ଜୋଲି ସେ ମଳାହାଏର ଜ୍ୟକହାର ହାରା ମଳାର ନବରଙ୍କପୁର କିଲ୍ଲାର ଉପକିଲ୍ଲାପାଳ କିଲା ମସ୍ୟ ଅଧିକାରୀ କୁର୍ର୍ର କହିଥିଲେ । ଆଇଏମଏମଟିର ପ୍ଧାନ ମାନ ଅଧିକ ହୋଇପାରିଚ ଚୋଲି ରାୟର ରରତ ଉପସ୍ଥିତ ରହି ବିଜ୍ଞାନ ଓ ମାରାୟି ଯୋଗ ଦେଇ ମସ୍ୟ ଖାଦ୍ୟ କାରିଗର ପ୍ରକନ ମାଧମରେ ଅନେଜ ପ୍ୟୁତିରେ ଏହି ତାଏର ମାଜ ଖାଦ୍ୟ ବୈଜ୍ଞାନିଜ ସ୍ୱେହାଶିଷ ଜେହେରା ଜହିଥିଲେ । ବିଜ୍ଞାନ ୯ ଜାରିଗରୀ ଜାନ ବୈଜ୍ଞାନିକ ପବତିରେ ଚାଷର ଜ୍ଞାନ ପ୍ରସ୍ତିରେ ଉନ୍ତି ମାନ ଆଧିବା ସହ ଘୋଗ ଦେଇ ତା ଏର ଦ୍ୱାରା ଏକ କୌଶକ କ୍ରିୟାନ୍ୟନ କମିଟି ସଦସ୍ୟ କୌଶନ ପୁଦର୍ଶିତ ହେଉ ଡି ସେହି ସବୁ ମାଜ ଖାଦ୍ୟକୁ ଅଧିକ ଦିନ ପର୍ଯ୍ୟତ ପ୍ୟାରେ ଃ ୦ କେକି ମ କାକୁ କୟା ନାରାୟଣ ବକ୍ଷି ଏହି କାର୍ଯ୍ୟକୁମକୁ କାର୍ଯ୍ୟକ୍ରମରେ ସାମିଲ ହୋଇ ଆର୍ଥିକ ଗ୍ଳିତ ରଖାଯାଇପାରିବ । ଏହି ତ୍ରାଏର ଶୁଖାଯାଇପାରିବ ବୋଲି କହିଥିଲେ । ପରିଚାଳନା କରିଥିଲେ ।



ଏହାର ମ୍ଲ୍ୟ ୩୦ ହଢାର ଟଙ୍କା ରଖାଯାଇ ବି । ଏହା ଘରଣ ଜାଠ ୯ ସୌର ଶତି ପର୍ଯ୍ୟର ଜ୍ୟବହାର ନଜରରଙ୍ପୁର କିଲ୍ଲାର ମଜା







## IISF 2020 to be organised virtually & jointly by DST, CSIR, MoES, MoHFW, DBT: Sci-Tech Ministry

CSIR-NISTADS

17<sup>th</sup> December, 2020



# and Global Welfare



IISF will take place from 22nd to 25th December 2020. "We have events where students can go for virtual tours, 3D exhibitions, virtual events, panel discussions, lectures and Science for Self-Reliant India many more. There are 41 events and everyone is welcome at the event," said Ranjana Aggarwal, "आत्मनिर्भरभारताय विश्वकल्याणाय च विज्ञानम्" Director, CSIR-National Institute of Science, MINISTRY OF SCIENCE AND TECHNOLOGY MINISTRY OF EARTH SCIENCES. MINSTRY OF HEALTH & FAMILY WELFARE GOVERNMENT OF INDIA Technology and Development Studies (NISTADS), New Delhi, on Thursday, 17th December. She was addressing the JC Bose In the pandemic when a lot of excitement University of Science and Technology, YMCA. seems to have come to a halt, it is science The University, in association with Vijnana and technology that are keeping the spirits Bharati (VIBHA), Haryana, organised a curtain high, said a press communication from the raiser for IISF 2020. Director Aggarwal Ministry of Science & Technology, adding elaborated on the various events and their that one such live example is the India scopes. She spoke about how students can International Science Festival (IISF) 2020 benefit with the programs at the ease of sitting where science can be experienced virtually. at their homes but without missing the real The nodal institution for the IISF 2020 is science. "When the pandemic happened, we CSIR-NISTADS, New Delhi. This Science thought it will get over in a few months and we Festival is organised jointly by the will be able to conduct the program like we did Department of Science and Technology last year. But by September it became clear that (DST), Council of Scientific and Industrial it won't be possible for us to conduct it Research (CSIR), Ministry of Earth physically. Then we thought of conducting it on Sciences, Ministry of Health & Family Produced by Science Communication and Welfare, and the Department of Dissemination Directorate, (SCDD), CSIR, A Biotechnology (DBT).





virtual platforms," said Jayant Sahasrabudhe, National Organising Secretary, VIBHA. He explained that IISF is involving global and overseas Indian researchers and academics. He said that despite the Covid-19 outbreak, the number of events has increased and there is a plan to increase it in following festivals. Dinesh Kumar, Vice-Chancellor of the University, congratulated and appreciated the efforts made by CSIR-NISTADS, Vijnana Bharati, and different Ministries to organise this mega festival of science during the current prevailing pandemic. In another outreach programme of the IISF 2020, Ranjana Aggarwal gave a popular science lecture on the objectives and significance of the science festival. The Science Ministry explained that the Science Communicators' Group had organised this outreach event to make people aware of the IISF. Information on various activities related to the Science Festival and registration of partners are available on the IISF website.







### 17<sup>th</sup> December, 2020



गुरुवार को दूसरे बेबिनार परिचर्चा का आयोजन किया गया। इस परिचर्चा में शिक्षा, विज्ञान एवं अनुसंधान क्षेत्र से जुडे प्रमुख विशेषज्ञों ने भाग लिया। विरोपत्नी का कहना था कि भारत का विज्ञान के हर क्षेत्र में प्राचीन तथा वैदिक काल से ही बडा योगदान रहा है। विज्ञान और तकनीक से मानव समाज और विश्व के समन्न उपस्थित चनौतियों के समाधान संभव है। अविष्कार देश और काल की सीमा से परे : वेबिनार परिचर्चा की शुरुआत करते हुए अपर महानिदेशक पीआईबी-आरओबी, रांची अस्मिदन सिंह ने कहा

चुनौतियों का समाधान संभव : प्रो हरीश सीएसआईआर-सीएमईआरआई, दुर्गापुर के निदेशक प्रो (डॉ) हरीश हिरानी ने विज्ञान और तकनीक के समुचित अनुप्रयोग से मानव समाज और संपूर्ण विश्व के समक्ष उपस्थित चुनौतियों के समाधान संभव है। वैज्ञानिक नवोन्मेंय के द्वारा न सिर्फ हम आत्मनिर्धर भारत की संकल्पना को मजबूत कर सकते है, बल्कि विश्वकल्याण को दिशा में प्रभावी गोगदान दे सकते हैं। आवश्यकता है प्रभावी, सरती और सम्पोषणीय और सतत तकनीकों के किकास की। वह संस्थान जन समुदाव के हित दृष्टिकोण से तकनीकों के समवबद और समुचित उपलब्धता तथा विज्ञान के तकनीक और उत्पाद में प्रभावी रूपांतरण पर विश्वास करता है।

समय ज्योमेट्री, मेजरमेंट, इंजीनियरिंग सभी का ज्ञान था। खेती के लिए हल का इस्तेमाल होता था, जल से व्यापार होता था, तो जहाज भी होगा। विज्ञान और तकनीक की हमेशा से भारत में उन्नति हुई है। वैदिक काल में आयुर्वेद, सजरी, इम्युनिटी पर लगातार जोध हुए है और किताबें लिखी गयी। गणित में और ज्योतिष विज्ञान में भी काफी काम हुआ है। धातू के औजार बनाने में भी विकास दिखता है। आकिटेकर के विकास से ही भारत में भव्य मंदिरों का निर्माण हुआ। ब्रिटिश काल के समय जुलौजी, बौटनी आदि पर काफी शोध हुआ।

क्षेत्रीय प्रचार अधिकारी ओंकार नाथ पहिंब तथा महविश रहमान द्वारा? दिवा गया। वेबिनार में तथा जनसंचार संस्थानों के अधिकारी, कर्म खत्रों के अलावा पीआईबी, आरओबी, एर दुरदर्शन एवं आकाशवाणी के अधिकारी-कर तथा दूसरे राज्यों के अधिकारी-कर्मचारियों ने भे लिया। गीत एवं नाटक विभाग के अंतर्गत कलाव सदस्यों, आकाशवाणी के पीटीसी, दुरदर्शन के तथा मीडिया से संपादक और पत्रकार भी शामि

सोग से परे हो। स्वार्श के लिए ही नहीं साथ-साथ २ ५ ९ कि जीवन में वर्षअल है। इन् छित्र, शेवाची, आम साइटिफिक टेंपर बढाने की को कि भाग न हें। त समाग्रेस कररेकर स पर विश्वत नियार तो के रमा के ए गेर उकी ए बुराहाली तो तो सक न के ति प न इस्कशन, हमेशा उड़े है न ई भे हले रुरत 1 हम हत नर्भर ने प्रेट्ड आम मों व भे देवा का ए, इय हो सद्रेशन, अविष्कार हो, वह देश और काल की और विज्ञान में हाई टक्नोलीजी के पह विज्ञान महोत्सव पहली बार एग्जीविशन आदि के माध्यम से जा रही है ताकि संबकी सं प्रतिमां बदे और बच्चों में रतनिंग बाह इंडेंग की श्रमता ब







### 17<sup>th</sup> December, 2020

## PIB Webinar: Since ancient era India has contributed a lot in Science



By Correspondent it was possible to address first time the event is virtual of self reliant India but also the challenges before the through which efforts are helps in welfare of the entire being made to increase the human community however humanity. PIB The in Addressing the webinar scientific temper among the for that it is important to students, researchers and develop effective and cheap ADG PIB Arimardan Singh CMERI Durgapur organised said that Indian has always common people through technologies. Principal of Ranchi Women's a webinar on Aatm Nirbhar believed in the doctrine panel discussion, workshops, Bharat and Science for of World is One and any live demonstrations, College Dr Abha Prasad said Global Welfare in which invention should not be exhibitions etc. that science and technology Director of CSIR-CMIRE have always moved upwards confined to one country or education, from Durgapur Professor Harish in the country. She said

Ranchi: association Field Outreach Bureau Dumka and CSIRexperts period but should be used research science and for the betterment of all. participated. In the meeting the He said that it is important of science and technology understand that without

Hirabi said that with the use that there was a need to

experts said that since the that the country first it is possible to address use of Science progress of vedic period India has peromes self reliant and use the challenges peopre the human race is not possible contributed a lot in the field indicated builds of origination. He is idea to and also stressed on the need of Science and with the use prosperity in the lives of the scientific inventions not to create awareness among people. He said that for the help in realising the dream the children for Science. of science and technology

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Jadeed Bharat





## **Pure EV to tie-up with CSIR-CECRI for indigenising lithium-ion** battery technology for EVs



16<sup>th</sup> December, 2020



The MoU will set the path forward for indigenous Lithium-Ion technology and help the country boost EVs apart from stationary and storage applications. A lithium battery is the most reliable and commercially-viable choice for electric vehicles across the world. Currently, in India, Lithium cells are mainly imported from China, which is a very critical dependence necessary for final battery packs IIT Hyderabad-incubated startup Pure EV required for electric vehicles. To address this is collaborating with CSIR - Central market monopoly, CSIR has launched a project with an aim to producing LIBs on a 100 MW Electro Chemical Research Institute (CECRI), headquartered at Karaikudi with scale. V K Saraswat, member, NITI Aayog said: its extension centre in Chennai, on "This collaboration between Pure EV and indigenising Lithium-Ion battery (LIB) CECRI will lead to important outcomes on technology for electric vehicles. Pure EV areas like battery thermal management system signed a memorandum of (BTMS) and safety which are critical to for has understanding (MoU) with CSIR- CECRI mass scale commercialisation of these cells. to undertake joint research on the NITI Aayog strongly encourages such production of battery packs, validation of partnerships which can lead to a more flexible LIB cells and addressing the specific supply chain for the evolution for an important requirements to ensure the suitability of industry like electric vehicles." To reduce the developed LIBs for critical performance at dependency on imports of battery components, the standard operating procedure (SoP) India needs to achieve a similar level of conditions. performance at the battery pack level.





apart from just manufacture the battery cells. Under this MoU, Pure EV will also provide critical feedback to CSIR- CECRI in understanding the technical limits of the manufactured cells and the additional improvements which will be required to achieve mass scale commercialisation. "Our extensive R&D work in the battery thermal management system gives us unique insights into the battery performance and lifecycle enhancement. We will work closely with CECRI team in enabling them to realise the full potential of their initiative. We will carry out extensive testing for performance validation across various EV 2W models across the pan India terrain conditions and benchmark with respect to the imported cells and providing them crucial feedback to achieve mass scale commercialisation," said Rohit Vadera, CEO, Pure EV.



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### CSIR-IICT

### 16<sup>th</sup> December, 2020

# 'Science and tech key to self-reliance'

### IICT scientist delivers keynote address on globalisation and Atmanirbhar Bharat

SPECIAL CORRESPONDENT HYDERABAD

Science & technology has a significant role to play in achieving the aim of self-reliant India with the Central government, too, according it priority. CSIR scientists, in particular, have been playing a key role not only in combating COVID-19 but also in space research, development of indelible ink, drugs, application pheromone technology and White Revolution, said M. Chandrasekharam, senior principal scientist, CSIR-Indian Institute of Chemical Technology (IICT) on Tuesday. Delivering the keynote address of the webinar on 'Globalisation-self reliant India -The need, the transforma-



India is no longer only a 'consumer of knowledge' adopting all best practices developed in other countries and but has emerged as producer of knowledge.

M. CHANDRASEKHARAM, Senior principal scientist, IICT vileged sections to prevent spread of the disease, he pointed out. "India is no longer only a 'consumer of knowledge' adopting all best practices developed in other countries and but has now emerged as producer of knowledge," Dr. Chandrasekharam added.

ganised by the Press Information Bureau and the Regional Outreach Bureau of the Ministry of Information & Broadcasting, he said scientists and researchers are playing their role in making India self-reliant in all fields.

CSIR contributions towards 'Atmanirbhar Bharat' also includes development tisers, testing, repurposing of drugs like Favipiravir, Remdesvir etc. The paperbased diagnostic technology 'Feluda' has been approved by the Drug Controller General of India, he pointed out. CSIR-IICT had also developed technology for nonclinical masks under a project funded by Cipla Foundation for distribution of one

### **Precursor to IISCF**

The webinar is being organised as a pre-cursor to the India International Science Festival (IISCF)-2020 from December 22-25, said PIB director Shruti Patil. ROB assistant director M. Krishnakanth also spoke. Students, officers and staff of various media units of the I&BMinistry, scientists and researchers from IICT participated, a



of PPE kits, ventilators, sani-

lakh masks to the under-pri-

press release said.

### **Published in:**

The Hindu



CSIR-IICT



### 16<sup>th</sup> December, 2020



సినియర్ ట్రిన్స్టోపల్ శాస్త్రవేత్త దాక్టర్ ఎం.చంద్రశేఖరం
ఆన్నారు. ఈనెల 22 నుంచి 25 వరకు కేంద్రం ప్రకుత్వం ఇండియా ఇంట
ర్నేషనల్ సైన్స్ పెస్టివల్-2020 ని నిర్వహిస్తున్న సందర్భంగా కేంద్ర సమాచార,
ప్రసార శాఖకు చెందిన పత్రికా సమాచార కార్యాలయం(పీఐబీ) మంగళవారం
వెబినార్ ఏర్పాటు చేసింది. ఇందులో ఆయన మాట్లాడుతూ కొవిడ్ సమ
యంలో దేశ అవసరాలకు పేపేఈ కిట్ను, వెంటిలేటర్లు తయారు చేయడమే కాక
ఇతర దేశాలకు ఎగుమతి చేయగలిగామని వివరించారు. పీఐబీ ఆర్ఓబీ డైరె

క్టర్ శృతిపాటిల్, ఆసిస్టెంట్ డైరెక్టర్ మానస్ కృష్ణకాంత్ మాట్లాదారు.

### **Published in:**

Eenadu





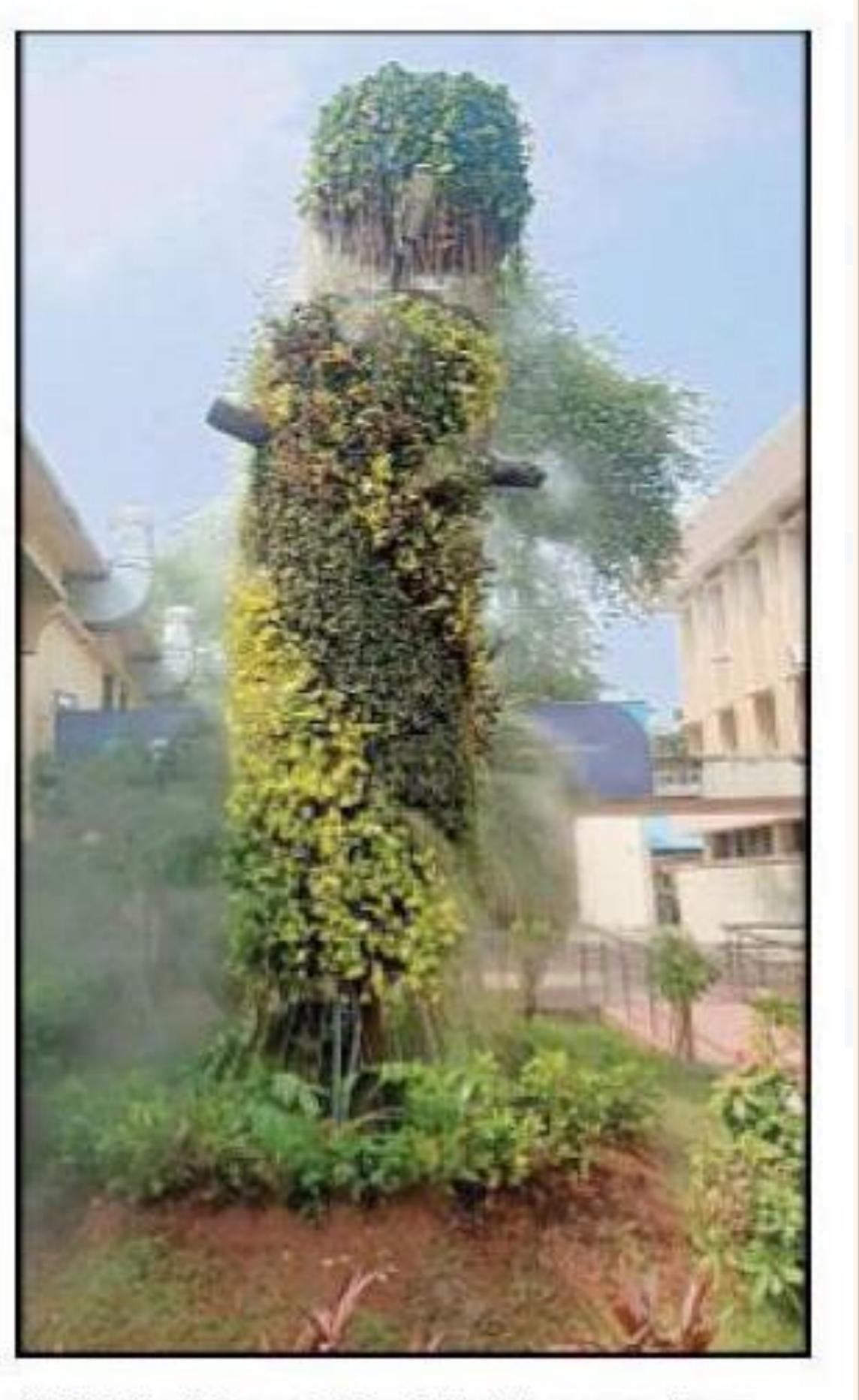
### 16<sup>th</sup> December, 2020

### CSIR-NEERI

## NEERI proposes 'Smart Tree' to improve air quality, Sakkardara Garden likely to get one demo tree

The mist cooling system of this artificial tree can control the surrounding temperature to about 2-7 degrees Celsius

By Kaushik Bhattacharya



This 'SmartTree' would have misting system that sprinkles water drops nearby areas. Road construction, Maha Metro project and many other infrastructure development works are underway in the city. These construction works are generating huge amount of dust on daily basis. Along with industrial and traffic pollution, the dust is also the big reason of poor air quality.

Keeping this in mind, NEERI come up with 'Smart Tree', which can help to reduce dust particles on city roads. "This artificial trees will have compartments to grow original plants which also can help to release oxygen. This Smart Tree will also have LED lights and also release mists," Dr Rita Dhodapkar, Senior Scientist, **'The** CSIR-NEERI told Hitavada'. Sprinkling water in form of mist is a good option to settle down dust on city roads. This tree is look like very similar to a normal tree but its mist spraying technique makes it different. The mist cooling system can control the surrounding temperature to about

2-7 degree Celsius lower than the ambient temperature. "We have proposed a demo 'Smart Tree' at Sakkardara Garden to NMC. If they consider the proposal we can fit it there. If the tree receives good response in the garden then it can be used at traffic junctions in all over the city," said Dr Dhodapkar.

The 'Smart Tree' is an organic light tower consisting of metal framework covered with living plants enhance the landscaping features of an entrance of a traffic junction.

CSIR-National Environmental Engineering Research Institute (CSIR-NEERI) has also come forward and contributing to improve the air quality of the city by proposing its 'Smart Tree' which can be installed at traffic junctions. Maharashtra Pollution Control Board (MPCB) has prepared an action plan under the National Clean Air Programme (NCAP) for improvement of air quality of Nagpur till next year. MPCB took help of NEERI for framing the action plan and Nagpur Municipal Corporation (NMC) is the implementing authority.

NEERI has submited a proposal of organic Light Tower inclusive of water sprinkler which is also called as 'Smart Tree' to the NMC.

NEERI's 'Smart Tree' that can reduce

Moneyplant which is known for its air purifying properties and produces oxygen in the night too, can be used on this artificial tree. Apart from this, Variegated Tabernae Montana, Crasulean plants and Orchids flowering plants also can be on this 'Smart Tree'. The 'Smart Tree' can be

developed to any size and shape depending on the location and requirement. It has controlled system of drip irrigation so that there is no wastage of water, said Dr Dhodapkar.

air pollution in city. (Contd on page 2)

### Published in:

The Hitavada





### CSIR-NEERI



### 16<sup>th</sup> December, 2020

## म्हणून काम बघत आहेत. पर्यावरण अभियांत्रिकी संशोधन क्षेत्रातील त्यांचे योगदान बघता, त्यांची या अभ्यासवृत्तीसाठी निवड करण्यात आली आहे.

### **Published in:**

Maharastra Times





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