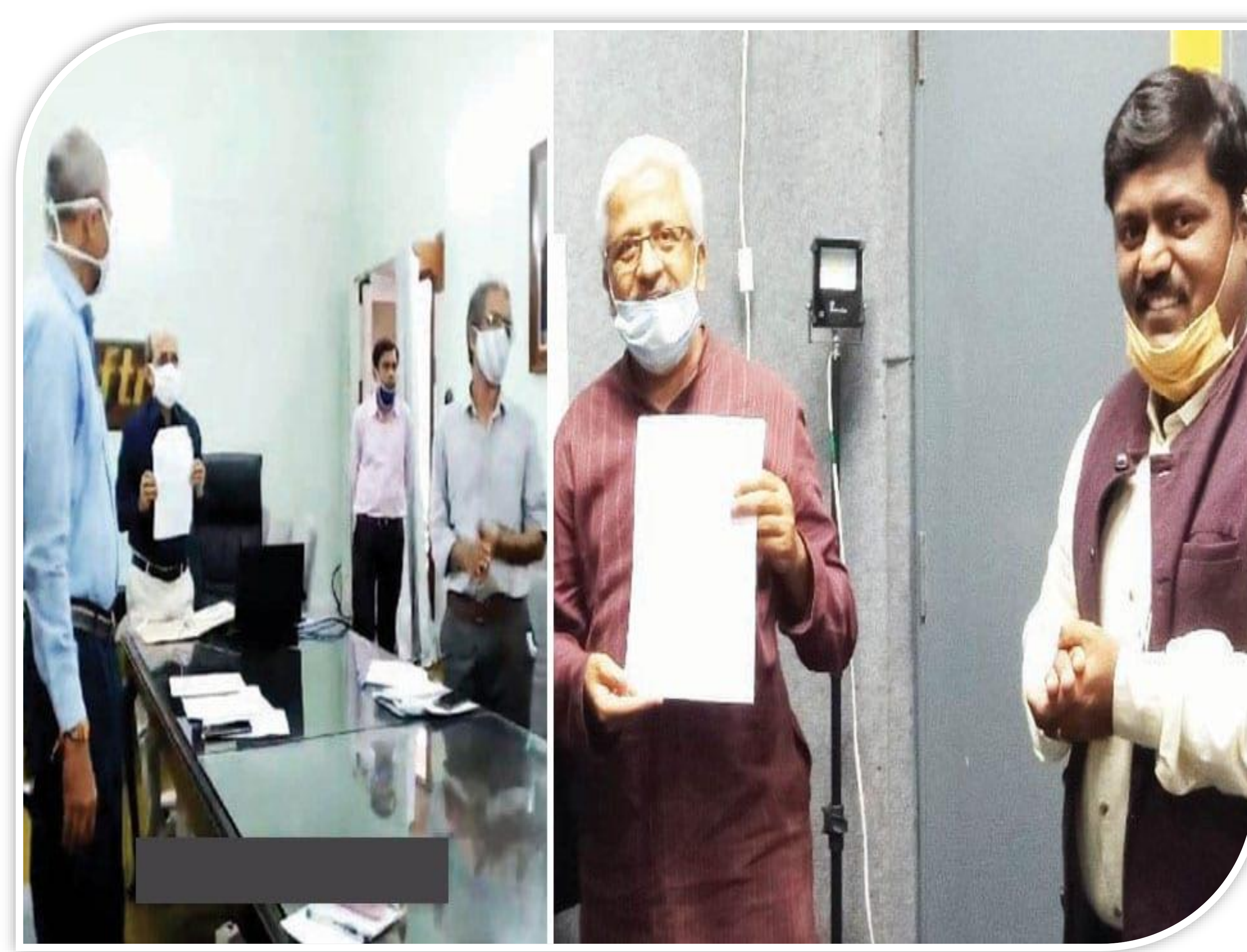


# CSIR IN MEDIA



**CSIR**

## **NEWS BULLETIN 26 TO 31 AUGUST 2020**





# కృష్ణా తీరం.. ప్లోరైడ్ తీవ్రం

- 19 శాతం ప్రాంతాల్లో దాని ప్రభావం
- 32 శాతం భూగర్భ జలాలు తాగేందుకు పనికిరావు
- ఎన్జీఆర్ఐ అధ్యయనంలో వెల్లడి
- 2018 వేసవిలో సేకరించిన నమూనాల ద్వారా గుర్తింపు

ఈనాడు, హైదరాబాద్: తెలంగాణలోని వన పర్తి, మహబూబ్ నగర్ జిల్లాల పరిధి కృష్ణా పరీవాహక ఎగువ ప్రాంతాల్లో 32 శాతం భూగర్భ జలాలు తాగడానికి పనికిరావని జాతీయ చూటొత్తిక పరిశోధన సంస్థ(ఎన్జీఆర్ఐ) ప్రాథమిక అధ్యయనంలో వెల్లడైంది. 1,600 చదరపు కిలోమీటర్ల పరిధిలో 2018 వేసవిలో 58 ప్రాంతాల నుంచి నీటి నమూనాలను సేకరించి విశ్లేషించగా ఈ విషయం తేటతెల్లమైంది. తెలంగాణలో ప్లోరైడ్ ప్రభావిత ప్రాంతాలు ఎక్కువగా ఉండటంతో శాస్త్రీయ అధ్యయనం కోసం పరిశోధకులు వాటర్షెడ్ ప్రాంతాన్ని ఎంపిక చేసుకుని బోరు బావుల నుంచి నమూనాలను సేకరించారు. బ్యూరో ఆఫ్ ఇండియన్ స్టాండర్స్ (బీఐఎస్) ప్రమాణాలకు మించి ఆయా



కృష్ణా పరీవాహక ఎగువ గ్రామంలో నీటి నమూనాలను సేకరిస్తున్న ఎన్జీఆర్ఐ ముఖ్య శాస్త్రవేత్త కె.రాంమోహన్, పరిశోధక విద్యార్థి ఎస్.పి.వైపి

ప్రాంతాల్లోని భూగర్భ జలాల్లో ప్రమాదకర మూలకాలు ఉన్నట్లు గుర్తించారు. ఈ ఫలితాల ఆధారంగా ప్రపంచ ఆరోగ్య సంస్థ నిర్దేశించిన నీటి నాణ్యత సూచి(వాటర్ క్వాలిటీ ఇండెక్స్) ప్రకారం శాస్త్రవేత్తలు ఆయా ప్రాంతాలకు రేటింగ్ ఇచ్చారు.

మొత్తంగా 68 శాతం ప్రాంతాల్లోనే తాగడానికి ఆమోదయోగ్యమైన నీటిలో నీటి నమూనాలు ఉన్నట్లు తేల్చారు. 'వానాకాలం తర్వాత అవే ప్రాంతాల్లో నీటి నమూనాలను పరీక్షిస్తే అధ్యయనం సమగ్రమవుతుంది. ప్లోరైడ్ 19 శాతం ప్రాంతాల్లోనే ఉందా? ఇంకా తగ్గిందా? మరిన్ని ప్రాంతాలకు విస్తరించినా అనేది కూడా తేలుతుంది' అని పరిశోధనకు మార్గదర్శనం చేసిన ఎన్

1,600 చదరపు కిలో మీటర్ల పరిధి భూగర్భ జలాల్లో ఏట లవణాలు, ఎంత శాతం ప్రాంతంలో

ప్లోరైడ్	19
క్లోరైడ్	3.44
నైట్రేట్	8.62
నల్ఫేట్	5.17
సోడియం	34.48
కాల్షియం	1.72
ఇతరాలు	27.57

జీఆర్ఐ ముఖ్య శాస్త్రవేత్త కె. రాంమోహన్ 'ఈనాడు'తో అన్నారు. ఆయన అధ్యయనంలో శాస్త్రవేత్తలు ఎస్.పి.వైపి, దినేష్ కుమార్ బృందం సాగించిన ఈ పరిశోధన ఫలితాలు 'ఎన్విరాన్ మెంటల్ సైన్స్ అండ్ పొల్యూషన్ రీసెర్చ్ ఇంటర్నేషనల్ జర్నల్'లో తాజాగా ప్రచురితమయ్యాయి.



## CFTRI-GRAAM To Establish Rural Women Entrepreneurship In Mysuru District

CSIR-CFTRI

29<sup>th</sup> August, 2020



on a virtual platform. The memorandum serves to provide a framework for understanding and co-operation between both the institutions in implementing rural livelihood projects. As part of the MoU, CFTRI will extend technical support for planning production unit, technical training to women entrepreneurs, quality assurance, etc. GRAAM, having rich expertise in developing livelihood model for rural communities based on rural wealth creation principles, will handhold the women entrepreneurs with necessary capacity building, training, mobilising and motivating them to be find a sustainable livelihood. GRAAM also intends to develop a brand for products produced by women entrepreneurs. The project aims at developing a resurgent economy in rural India by adding value to local agricultural produces. The programme is expected to benefit entrepreneurs as well as farmers in rural areas. As the first initiative under the framework of this MoU, GRAAM is implementing a social business project in a selected village of Mysuru district.

**CSIR-CFTRI** (Central Food Technological Research Institute) and **GRAAM** (Grassroots Research and Advocacy Movement), Mysuru, signed a Memorandum of Understanding (MoU) on Aug.20 to provide a mutual technical – social collaboration for establishing rural livelihood initiatives in India. The memorandum was signed on behalf of **GRAAM** by Dr. R. Balasubramaniam, Chairman, **GRAAM** and Dr. K.S.M.S. Raghavarao, Director, **CFTRI**. Dr. Basavaraju R. Shreshta, Executive Director of **GRAAM**, Dr. R. S. Matche, Head **TTBD**, P. Manilal, Head, **PMC** and Raghavendra, **TTBD** Department were present at the signing event that was held



The goal of the project is to support rural women entrepreneurs to develop a sustainable livelihood. GRAAM will establish a millet-based value-added product manufacturing unit and will handhold the women entrepreneurs to streamline the business functions in a sustainable manner. The project is being supported by WuerthElektroniks, a 75-year-old multinational company which is a world market leader in the sale of assembly and fastening materials. Dr. R.S. Matche assured necessary support from CFTRI with required technology to develop a state-of-the-art processing unit and nutritious millet-based food products.

Dr. Basavaraju of GRAAM, highlighted the importance of partnership between a development organisation like GRAAM and a technical institution like CFTRI to impact the rural women and rural economy. Dr. R. Balasubramaniam said the project will add value to rural women entrepreneurs, consumers, CFTRI, GRAAM, and others who involve in the project.

Dr. Raghavarao said this initiative will improve rural livelihood and assured support to GRAAM.

**Published in:**  
[Star of Mysore](#)



# Students connect on 'Behind The Teacher's Desk'

## Mail News Service

**Jamshedpur, Aug 28 :** e-Behind The Teacher's Desk (e-BTTD-2020), an international student seminar on Materials and Metallurgical Engineering, was organised by Indian Institute of Metals (IIM) Jamshedpur Chapter in association with CSIR-National Metallurgical Laboratory (NML), National Institute of Technology (NIT) Jamshedpur and Tata Steel Limited.

This year due to Covid-19 pandemic situation around the globe, the seminar was organised on a virtual platform in the form of e-BTTD-2020.

The aim of the seminar is to provide a common platform for promising and aspiring metallurgists to interact with the

pool of experts from industries, R&D centres and academia. The student participants of this event will get an opportunity to update their current knowledgebase, and share their academic achievements, innovative thoughts and new ideas in the field of metallurgy and materials technology.

Like previous years, this year also around 70 students from 25 engineering colleges/institutes. There were rigorous interactions among the students on the YT channel. Thereafter, a total of 17 participants were selected for presentations for the finale event which was organised on 28th Aug, 2020 through CISCO platform WebEx. The finale was virtually presided over by the Chief Guest, Dr. Namburi Eswara Prasad (Outstanding Scientist and



Director, DMSRDE, DRDO), Guest of Honour, Dr. Shantanu Chakrabarti (Ex. Head-Research Application, Tata Steel & Visiting Prof. IIT Kgp.), Dr. Indranil Chatteraj (Director, CSIR-NML) and Dr. Mita Tarafder (Chairperson-IIM Jamshedpur Chapter).

Dr. Indranil Chatteraj, Director of CSIR-NML, Jamshedpur welcomed the Chief Guest and

the student delegates. He motivated the metallurgy graduates to work and contribute in core profession and to come up with noble and newer ideas for the advancement of the metallurgy and materials engineering.

Dr. Namburi Eswara Prasad, Outstanding Scientist and Director, DMSRDE, DRDO and the Chief Guest of the inaugural function addressed the student participants. He appreciated the involvement of huge number of student participants from metallurgical fraternity in this event. He emphasized upon some of the significant achievements of DMRL and DMSRDE in indigenizing various materials for defence applications. He also briefly talked about the extensive and thorough work which DMRL and DMSRDE have carried out

with respect to the development of Al-Li alloys and DMR 1700 grade maraging steel for Indian strategic sector. He concluded his lecture by motivating the participating students to strive for fundamental knowledge which can actually help in employing advanced engineering tools and techniques to make materials more useful for the human kind.

Dr. Shantanu Chakrabarti, Former Head-Research Application, Tata Steel & Visiting Prof. IIT Kgp. and the Guest of Honour took the online platform to a next level by indulging students in a highly interactive and igniting session of out of box thinking. He emphasized upon the qualities which an engineer of tomorrow should possess so as to make an impactful career, fruitful for the human kind as well.



## मेटेरियल और मेटलर्जिकल इंजीनियरिंग पर हुआ मंथन

जमशेदपुर. एनएमएल में इ बिहाइंड द टीचर्स डेस्क 2020 का आयोजन किया गया. जिसमें भारत के साथ-साथ अन्य कई देशों के विद्यार्थियों व रिसर्च स्कॉलर ने हिस्सा लिया. मौके पर मेटेरियल व मेटलर्जिकल इंजीनियरिंग पर चर्चा हुई. इंडियन इंस्टीट्यूट ऑफ मेटल्स, सीएसआइआर-एनएमएल, एनआईटी जमशेदपुर व टाटा स्टील के संयुक्त तत्वावधान में आयोजित इस वेबिनार में विज्ञान के क्षेत्र में हो रहे बदलावों पर चर्चा की गयी. इसमें देश के विभिन्न इंजीनियरिंग संस्थान के 70 विद्यार्थियों ने हिस्सा लिया.



## CSIR-NEIST Branch donated Hand Sanitizers to RIMS

CSIR-NEIST

28<sup>th</sup> August, 2020



A team led by Dr H Birkumar Singh, Senior Principal Scientist, CSIR-NEIST Branch Lab, Lamphelpat, Imphal donated Alcohol based Herbal Hand Sanitizers to RIMS, Imphal today. Sixty nine (69) nos of Hand Sanitizer bottles including spray type which is formulated by CSIR-NEIST Branch, Lamphelpat, Imphal handed over to Director, RIMS Prof A Santa Singh at his office chamber. The Director thanked the CSIR-NEIST Lamphelpat, Imphal team for donating the said items during this COVID-19 pandemic situation. It will also help the staff of RIMS Imphal for day today need.

**Published in:**

[E-Pao](#)



## CCMB chief: Need to study reinfections

CSIR-CCMB

27<sup>th</sup> August, 2020



All reports of Covid-19 reinfection need to be watched closely and investigated, Dr Rakesh Mishra, director, CSIR- Centre for Cellular and Molecular Biology (CCMB), Hyderabad, has said. The most dominant clade (sub-strain) of the virus has changed from A3i to A2a in Hyderabad. A3i, which was dominant in the southern part of the country, is weaning out. The senior scientist said Covid-19 reinfection was not impossible but rare at the moment and could happen due to a variety of reasons. CCMB would like to research the cases, if it gets support from the authorities having samples of the suspected cases, he added. “There are very few suspected cases, including from Delhi, Telangana and

Gujarat. Typically, in India all cases of reinfection have been those which are either health professionals or somebody who is handling samples. Security persons who are in this environment for long durations too have been affected. The issue is that we must be very sure that the person who is reinfected was tested correctly both times and there is no mistake in labelling samples, exchange of names and contamination (contamination is a big issue during sample process),” Mishra said. He said RT-PCR tests are extremely sensitive and can give false positive in case of contamination. Speaking about the two suspected cases of reinfection in Hyderabad, he said there are many things to validate before we can call it a genuine case of reinfection. “Both isolates should be sequenced to really figure out if there is a different clade of the virus (sub-strain) compared to first-time infection,” he said. Hyderabad currently is seeing most cases of a2a clade of the virus. “In case of SARS-CoV 2, the virus strain is only one but there are sub-strains. A small variation keeps changing the clade and even in one clade



there can be a number of mutations. These mutations are not of much consequence but they are there and once in a while, it can make the virus stronger...” Hyderabad has largely only one clade, which is a2a, while earlier it was A3i which was seen in large numbers. “A3i has almost disappeared, going by what we sequenced the last time.” Predicting that infections will come down in the country soon, he said, “There is nothing unusual and unexpected happening with the virus so far. At the moment I don’t think reinfection is something that should bring any alarm but since it has been noticed, people should watch out carefully...”

**Published in:**

[The Times of India](#)



## IIT-Tirupati inks pact with CFTRI to work in food technology

CSIR-CFTRI

26<sup>th</sup> August, 2020



Indian Institute of Technology (IIT) Tirupati and Central Food Technological Institute (CSIR-CFTRI), Mysore have signed a memorandum of understanding for scientific collaboration in a virtual event held on Wednesday. The MoU between the two premier institutes allows for exchange of faculty and scientists, collaboration on research projects and joint guidance of students. Speaking at the event, IIT Director Prof K N Satyanarayana said that food technology and precision agriculture was one of the thrust areas of the institute due to its national relevance. Though the country is primarily agriculture driven, very few premier institutes focus on agriculture and food technology, he added.

**Published in:**  
[The Hans India](#)



## CSIR-CMERI to launch e-tractors in September

CSIR –CMERI

26<sup>th</sup> August, 2020

CSIR-CMERI, Durgapur, plans to launch electronic tractors next month, which will have the potential to change the current practice of using diesel tractors in the country. Central Mechanical Engineering Research Institute (CMERI) director Harish Hirani said at a recent webinar on modern age farming that it will be a "revolutionary step" in the history of tractor technologies.

"CSIR-CMERI will be launching the first generation e-tractors in September, 2020, which has the potential to overhaul the current diesel-intensive tractor usage practices prevalent across the nation," he said on Tuesday. Hirani urged all MSEs (material, science and engineering units) to come forward with their ideas, visions and existing technologies so that CSIR-CMERI can collaborate and add further value to the "potential visionary technology."

"The future trend in agriculture would be driven by Artificial Intelligence and Efficient Electronic Architecture, and the research and development course of CSIR-CMERI is already aligned in this direction," he said. To enhance the income of farmers and help them get proper value for their produce, CSIR-CMERI has developed post-harvest technologies being used in northeastern states, including Mizoram, Arunachal Pradesh and Manipur.

The post-harvest processing technology has a tremendous socio-economic impact in the northeastern states, he said. It is helping thousands of locals, especially women, to become a part of mainstream economic activities, Hirani said. PTI SUS MM MM

**Published in:**  
[Outlook](#)



## AIIMS Rishikesh to establish plastic banks for recycling

CSIR –IIP

26<sup>th</sup> August, 2020

As an initiative to properly dispose of the generated plastic waste, All India Institute of Medical Sciences (AIIMS), Rishikesh will set up plastic banks in association with Social Development for Communities Foundation. According to the foundation's Anoop Nautiyal, there is a considerable increase in the amount of plastic waste generation in the last few months and recycling this kind of waste is an effective way to deal with the issue.

He said that his foundation had already established plastic banks in Dehradun last year from which the collected plastic waste is being recycled in Council of Scientific and Industrial Research-Indian Institute of Petroleum (CSIR-IIP) and in similar way, the plastic waste from AIIMS will be recycled here too.

**Published in:**  
[The Pioneer](#)



## Webinar on Assessing R&D Needs & Development of Import Substitute in Farm Machineries for MSMEs

CSIR-CMERI

25<sup>th</sup> August, 2020



Prof.(Dr.) Harish Hirani, Director, CSIR-CMERI, Durgapur, Shri R.K. Parmar, Deputy Director, MSME-DI, Ludhiana and Shri Baldev Singh, Chairman, Punjab State Agriculture Implements conversed upon redirecting R&D course for bolstering Import Substitution in Farm Machineries at an engaging Webinar held on 25th August 2020. Prof.(Dr.) Harish Hirani, Director, CSIR-CMERI, Durgapur, gave a thorough and analytical presentation on the array of CSIR-CMERI developed Farm Mechanization, Agricultural and Post-Harvest technologies. Dr. Hirani stated that an amalgamation of Science, Economics and Society can work wonders for transforming the Economic Landscape of

the Nation. He charted the technology development journey from the Swaraj Tractor developed by CSIR-CMERI during the Green Revolution to the compact Krishi Shakti Tractor developed as a specimen of the changing trends in Agricultural practices. In his presentation, Dr. Hirani showcased innovative agricultural technology interventions ranging from Precision Planter for Vegetables, Offset Rotavator for Orchards to Controlled Atmosphere Renewable Energy Based Stand-Alone Cold Storage Unit, Leaf Collector System and Automatic Bio-Mass Briquetting Plant. To enhance the income of farmers and to get proper value for their produce, CSIR-CMERI has developed post-harvest technologies and have been installed in various states of North East India including Mizoram, Arunachal Pradesh and Manipur. The Post-Harvest processing technologies having a tremendous socio-economic impact in the North-Eastern states and is helping thousands of locals, especially women, to join the mainstream economic activities. Dr. Harish Hirani, stated that as a revolutionary step in



the history of tractor technologies, CSIR-CMERI will be launching the First Generation E-Tractors in the month of September, 2020, which has the potential to overhaul the current Diesel-intensive Tractor usage practices prevalent across the nation. Dr. Hirani urged all the MSEs to come forward with their ideas, visions and existing technologies so that CSIR-CMERI can collaborate and add further value to those potential visionary technology through intensively analyzed Techno-Economics. The future trend in Agriculture would be driven by Artificial Intelligence and Efficient Electronic Architecture, and the R&D course of CSIR-CMERI is already aligned in this direction. The CSIR-CMERI technologies after being deployed in the fields, if requires further improvisation/modifications as per newly evolved challenges/obstacles, will be remodeled/value-added by the team of scientists exclusively deputed for the purpose.

Shri Baldev Singh and Shri R.K. Parmar were highly enthused by the technology prospects of CSIR-CMERI. Shri Baldev Singh urged Dr. Hirani to further intensify the efforts of CSIR-CMERI towards development of bespoke solutions for the farming community across the nation as per the geographical, soil and socio-economic parameters of the region.

**Published in:**

[India Education Diary](#)





सीएसआइआर-आइआइटीआर में 50 हजार से ज्यादा कोविड-19 परीक्षण पूरे होने पर निदेशक के साथ टीम • फोटो सौजन्य : संस्थान

## आइआइटीआर 50,000 से अधिक नमूनों का परीक्षण कर अब्वल

जागरण संवाददाता, लखनऊ : राजधानी स्थित ( भारतीय विषविज्ञान अनुसंधान संस्थान ) आइआइटीआर ने पिछले 16 हफ्तों में कोविड-19 के 50 हजार से अधिक नमूनों का परीक्षण करके सीएसआइआर ( वैज्ञानिक तथा औद्योगिक अनुसंधान परिषद ) की प्रयोगशालाओं में अब्वल स्थान प्राप्त किया है। संस्थान चार मई से प्रदेश के विभिन्न जिलों में नमूनों की जांच कर रहा है।

आइआइटीआर के निदेशक प्रो. आलोक धावन बताते हैं कि बढ़ते कोरोना वायरस मामलों में जांच का दायरे बढ़ाना प्रमुख जिम्मेदारी थी। चिकित्सा शिक्षा मंत्री सुरेश खन्ना, मुख्य सचिव के साथ हुई बैठक में संस्थान में कोविड-19 परीक्षण किए जाने की पेशकश की। इसकी

तैयारी के बारे में अवगत कराया। संस्थान की सेल-कल्चर सुविधा को प्रयोगशाला में कोविड-19 परीक्षण सुविधा के रूप में पुनर्निर्मित किया गया। सीएसआइआर, आइसीएमआर और राज्य अधिकारियों से अनुमोदन प्राप्त किया।

केजीएमयू के माइक्रोबायोलॉजी विभाग द्वारा जैव सुरक्षा उपायों, नमूना प्राप्त करने, रियल टाइम पीसीआर आधारित परीक्षण, डाटा विश्लेषण और रिपोर्टिंग पर लगभग 10 कर्मचारियों की एक टीम को प्रशिक्षण दिया गया। वैज्ञानिकों ने मानकीकृत प्रक्रियाओं के अनुसार मॉक टेस्टिंग की और परीक्षण शुरू किया। प्रति दिन 50 नमूनों की परीक्षण क्षमता थी जो अब बढ़कर प्रति दिन 1200 तक पहुंच गई है।



# IITR tests over 50K samples

**PNS ■ LUCKNOW**

The Indian Institute of Toxicological Research (IITR), an ICMR and state approved COVID-19 testing facility since May 4, has accomplished a landmark of testing over 50,000 samples for coronavirus infection in the last 16 weeks to become the first CSIR lab in the country to reach this milestone.

The IITR is receiving samples from various districts of Uttar Pradesh.

IITR Director Alok Dhawan said that while the COVID-19 cases were shooting up to an alarming stage during the second phase of Lockdown, as an emergency response, CSIR-IITR created a state-of-the-art facility for COVID-19 testing as per national norms.

“In a meeting with the chief secretary of UP government as well as Medical Education Minister Suresh Khanna, we apprised them of full preparedness for testing and assured support to the state to enhance the testing capaci-

ty for COVID-19. The cell-culture facility of the institute was repurposed to BSL2+ laboratory to serve as COVID-19 testing facility,” he said.

He said IITR formulated standard operating procedure (SOP) and obtained approval from CSIR, ICMR and state authorities.

“A team of about 10 personnel had been imparted training by Department of Microbiology, King George’s Medical University (KGMU) on biosafety measures, sample receiving, real time PCR based testing, data analysis and data reporting. They in turn trained the other staff of CSIR-IITR involved in institutional COVID-19 testing facility. Procurement of consumables such as testing kits, PPE, plastic ware were made at rapid pace. The scientists of CSIR-IITR standardised procedures, performed mock testing and initiated sample testing by themselves. Later the institute hired dedicated manpower to run the facility funded by the CSIR,” Dhawan said.

He said that UP government provided full support by deputing a medical microbiologist and two technicians at the IITR COVID-19 testing facility. “Initially, the institute had testing capacity of 50 samples per day which is now ramped up to 1,200 samples per day. In a short span of less than four months, the IITR has reached a major landmark by finishing over 50,000 tests. The IITR is the first CSIR laboratory to reach this milestone. This was made possible only by the untiring and persistent efforts of numerous scientists, technical and various other staff, who have been working continuously for seven days a week. The IITR is also contributing in capacity building,” he said.

The IITR is providing training on various aspects of COVID-19 testing to staff of other CSIR labs and state medical colleges. “The IITR is committed to serve at its best capability during this crucial time of national crisis,” Dhawan added.

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