

# CSIR IN MEDIA



**CSIR**

**NEWS BULLETIN**  
**11 TO 15 JUNE 2020**





## Forensic technology to tackle wildlife crime, meat adulteration

CSIR –CCMB

15 June, 2020

### Universal Primer Technology allows accurate identification of species

Ever wondered whether the expensive mutton on your plate was ‘truly’ mutton or a little bit of mutton mixed with cheaper beef? The State government has now given the go ahead for procuring a forensic technology that would come in handy for tackling wildlife crime and adulteration of meat products.

Orders have been issued for arming the Centre for Wildlife Sciences (CWS) at the State Institute for Animal Diseases (SIAD), Palode, with the Universal Primer Technology (UPT) at ₹10 lakh. The UPT allows quicker and accurate identification of species — animal, fish or bird — from small biological samples.

An MoU will be inked with the Centre for Cellular and Molecular Biology (CCMB), a premier Hyderabad-based CSIR institute, for accessing the technology. Both the State Forest Department as well as the Food Safety Department stand to gain from this development.

### Evidence

Often, cases pertaining to poaching fail to stand up in court for want of evidence, notably due to failure in establishing the identity of the meat in question. This is where UPT comes in. In fact, the technology garnered national attention some years ago when it was used in a poaching case involving a prominent Bollywood actor.

Again in the case of meat adulteration, UPT can be used to confirm whether meat products such as mutton, which is expensive, is laced with beef. “This is a universal primer which can look at DNA from something as small as a fly to something as huge as a blue whale,” Nandakumar S., Assistant Director and Coordinator, Centre for Wildlife Sciences, said.



At present, the cost of sending a sample to Hyderabad for tests comes to around ₹20,000, including transportation expenses. Once the know-how is made available here, the cost would dip to ₹1,500 to ₹ 2,500 per sample.

### **For three years**

The Centre for Wildlife Sciences would get exclusive rights for using this patented technology in Kerala for a period of three years, Dr. Nandakumar said. The lab at the centre was already equipped with the basic infrastructure for accommodating UPT.

Under the MoU, CCMB will also impart training to scientists attached to the centre.



## More bioavailable zinc: India's national research institute product to be trialled on COVID-19 patients

CSIR –IIIM

15 June, 2020

India's national research institute, the Indian Institute of Integrative Medicine (IIIM), will conduct a clinical trial on a zinc supplement that it claims has a higher bioavailability to support recovery in COVID-19 patients.

Trademark as Zincona-C, the product will contain zinc gluconate containing 20mg of zinc and 40mg of vitamin C for every 100mg of the formulation. Zinc gluconate is a zinc salt form of gluconic acid.

The institute, under the country's Council of Scientific and Industrial Research (CSIR), has finished the development of the formulation and is seeking to license the product to commercial firms.

In addition, it has planned for a clinical trial of the product, which comes in the form of a tablet, on mild to moderate COVID-19 patients. The trial is expected to take place within June.

Speaking to NutraIngredients-Asia, Dr Ram Vishwakarma, director of IIIM Jammu, said the supplement would be trialled as a nutritional support in COVID-19 patients with mild to moderate symptoms and administered alongside medical interventions.

The product will make use of a proprietary fermentation technology developed by the institute 15 years ago.

According to Dr Vishwakarma, it is currently widely used in both Indian and foreign companies to produce zinc gluconate in human and animal health products.

“It has a higher bioavailability because using the fermentation technology, the zinc is in complex



with an organic molecule and so it is more soluble and more bioavailable as compared to inorganic zinc,” he said.

The six-month long trial will recruit about 400 to 500 subjects and the product is expected to launch in the market after the end of the trials.

“We have completed the formulation and we will start the trial in the next 15 days or one month. We are trying to find an industry partner to market the product.

### **Existing evidence on zinc**

An essential trace element, zinc is now at the spotlight for its role as an antioxidant and strengthening the immune system amid the current pandemic.

Some examples include Bayer with its Redoxon Triple Action vitamin C, D, and zinc formula which contains 10mg of zinc. Blackmores’ Bio C 1000+ Effervescent also contains zinc gluconate with 5mg of zinc.

Existing studies also showed that zinc gluconate is effective in shortening the duration of common cold.

Based on the results of four randomised trials, a 2017 meta-analysis published in the Journal of the Royal Society found that zinc gluconate lozenges could reduce the duration of common cold by 28%.



## IIT-G, NEIST to study frequent tremors felt at Baghjan area

CSIR –NEIST

15 June, 2020

GUWAHATI: Assam Chief Minister Sarbananda Sonowal on Monday entrusted the North East Institute of Science and Technology (NEIST), Jorhat and Indian Institute of Technology-Guwahati (IIT-G) to carry out a detail study on occurrence of frequent mild tremors in Baghjan areas in Tinsukia district following the explosion of the gas well on June 9 that stoked a massive inferno in the area.

The NEIST which will be helped in the study by the Indian Institute of Technology, Guwahati (IIT-G), is expected to determine the causes and plausible impact of these tremors in the area. Oil India Limited would provide all inputs relevant to conduct the study.

Sonowal's action to initiate the study is in accordance with the announcement he made before the fire-affected people of Baghjan during his stock-taking visit along with Union Petroleum Minister Dharmendra Pradhan to the area on Saturday.

Chief Minister met some senior scientists from IIT-Guwahati and CSIR-North East Institute of Science and Technology (NEIST) at his office in Janata Bhawan here on Monday and requested them to start their job on emergency basis.

Sonowal drew the attention of scientists of CSIR-NEIST to importance of maintaining sanctity and balance of environment in Baghjan area and requested them to conduct the study into reported tremors in the area and submit report, for the government to take appropriate and time bound steps.

Director CSIR-North East Institute of Science and Technology Dr. G. Narahari Sastry, other senior scientists of the institution, Professor, Department of Civil Engineering, IIT-G, Dr. Sajal Kanti Deb were present at the meeting along with top officials of Government of Assam.

**Published in: [The Shillong Times](#)**



## IITR, Lucknow startup develop tech to disinfect PPE, N95 masks for reuse

CSIR –IITR

15 June, 2020



joint patent of the technology,” said IITR director Prof Alok Dhawan.

“This is the first-of-its-kind technology in the country and the machine can come in handy at a time when safety gears are required at a large scale due to Covid-19 pandemic,” he said.

“The equipment will help in saving cost of new PPE kits and masks and also save environment as bio-medical waste will be reduced. We will send it to Small Arms Factory, Kanpur, for further testing,” he added.

The equipment comes with a bucket and a revolving plate in which as many as 25 PPE kits can be placed at a time for disinfection.

Executive director, Maser Technology Pvt Ltd, Monish Bhandari said: “The equipment has 10-times amplified strength as compared to normal microwave and doesn’t melt plastic or deteriorates cloth material as disinfection requires a temperature of 60-70 degrees Celsius. It does not require heavy power connection and can be run even in households.”

**LUCKNOW:** The Indian Institute of Toxicology Research (IITR), in association with a Lucknow-based startup has indigenously developed ‘OptiMaser’ – a microwave-based disinfection system which can make personal protective equipment (PPE) and N95 masks reusable.

“The technology has the capability to disinfect PPE kits and N95 masks within 10 minutes. It has been tested by the All-India Institute of Medical Sciences (AIIMS), Jodhpur, and Sanjay Gandhi Postgraduate Institute of Medical Sciences (SGPGIMS), Lucknow, and has received positive reviews. We have filed for a



Director, AIIMS, Jodhpur, Prof Sanjeev Misra said, “We got positive results in a series of tests done since April to see whether microwave can disinfect PPEs and N95. The machine can be effective in areas of low-risk exposures.”



## Presence of heavy metals detected in west UP groundwater

CSIR –IITR

14 June, 2020

Presence of heavy metals detected in west UP groundwater .

Lucknow, June 14 (IANS) A groundwater toxicology study, conducted in nine districts of western UP by CSIR-IITR, Lucknow, has found high levels of calcium, iron, fluoride, sulphate and other elements in a majority of villages and urban areas, making the water unfit for drinking.

According to medical experts, excessive presence of calcium, fluoride, sulfate and iron causes several health issues. Drinking water with excessive mineral content prevents the human body from absorbing iodine. Further, it causes arthritis, fluorosis and teeth pigmentation.

Similarly, heavy iron in water has led to alzheimer"s and anaemia among local residents.

The chemical content test of the Hindon basin groundwater was commissioned by the UP groundwater department last year.

The study revealed that, among all west UP districts, Agra"s groundwater was the worst.

The report said that a total of 337 villages and urban areas of Saharanpur (96), Muzaffarnagar (70), Shamli (29), Meerut (26), Baghpat (33), Ghaziabad (21), Agra (25), Firozabad (13) and Gautam Buddh Nagar (24) were selected for groundwater sampling.

Of the total samples, groundwater in 237 villages has excessive iron, excess calcium in 240 villages, high levels of fluoride in 68 villages and sulfate in 12 villages. Groundwater in the rest of the villages has various other metal contents in excess.

In Saharanpur district, 70 villages reported heavy iron content in groundwater and 72 with calcium.



Similarly, in Muzaffarnagar, 34 villages have high levels of calcium and 44 have excess iron content.

In Baghpat, 25 villages have high levels of calcium and 28 villages have high iron content.

In Gautam Buddh Nagar, 24 villages have heavy presence of calcium in groundwater and 13 villages have high iron content.

In Ghaziabad, groundwater in 21 settlements has excess calcium and heavy iron content in 16 others.

In Agra district, groundwater in 23 villages/urban areas has excessive calcium and 19 others have heavy iron content.

In Meerut district, 21 settlements have high calcium content in groundwater and 18 others have high iron content.

V.K. Upadhaya, senior geophysicist of UP groundwater department who commissioned the study, said, "The study by CSIR-IITR is still on, and we will submit a comprehensive report in the next two months."

Dr Prabhat Agrawal, professor of medicine department at S.N. Medical College in Agra, said: "Because of the Aravali range that extends up to NCR, the groundwater in most districts of western Uttar Pradesh have presence of heavy metals, which is natural. Drinking water from earthen pot is the cheapest and the best way to save ourselves from heavy metals".

He said modern water filters are also good in curbing heavy metal, but using these leads to wastage of huge quantity of water, which goes down the drain instead of the ground to rejuvenate the water table.

**Published in: [Outlookindia](https://outlookindia.com)**



## A heritage collapses as Telangkhedi wall caves in

CSIR –NEERI

14 June, 2020

Nagpur: Fear of conservationists came true on Saturday when a large part of the retaining wall around Telangkhedi (Futala) Lake, a Grade-1 heritage structure, collapsed. Activists have demanded urgent structural audit of the lake.

On Friday, the city witnessed heavy winds along with rainfall and it is likely that the wall came down as it was already weak.

Futala is listed as a Grade-I heritage structure in the gazette notification issued by the state government on October 18, 2003. The Grade-I category is the highest level of protection given to buildings and precincts of national or historic importance.

While the local administration has ambitious plans for giving a facelift to the lake precincts, activists warned that focusing on improving the aesthetics rather than assessing the structural value will prove to be detrimental.

According to them, the wall was constructed few years back. “It hardly lasted for two-to-three years. This shows that no structural audit has been carried out by the administration,” said Jaydeep Das, honorary wildlife warden of Nagpur.

In an interview with TOI, Union minister Nitin Gadkari had stated that the musical fountain at Futala lake was his dream project. Under this, MahaMetro will be building an elevated viewing gallery which will stretch across a good part of the Futala waterfront.

The National Environmental Engineering Research Institute (Neeri) has also warned that the facelift could cause permanent damage to the water body.



Activists further stated that the permission given by the heritage conservation committee to Futala redevelopment project was questionable and need to be revisited. As per heritage laws, any development around a Grade-1 structure should not destroy its grandeur and view. “The collapse of the wall shows that the lake is not secure,” said Das.

Two years back too the wall along Air Force gate side had also collapsed, pointed out Kaustav Chatterjee, founder of Green Vigil. “The wall surrounding Futala lake is in a shambles since last two years. The collapsed portion was barricaded during Ganpati Visarjan. A structural audit needs to be done urgently as many portions of the wall have collapsed. Ganpati festival will be here within three months and for safety purposes, measures need to be taken as Futala is the only lake where visarjan is being allowed.” He added that collapsed wall should be barricaded with tin sheets immediately.

As reported by TOI earlier, most of the construction is being planned in the lake’s catchment area, which according to Neeri can have adverse impacts. “Construction activities in the catchment area can reduce the flow of water into the lake,” Neeri had stated.



## Lavender cultivation brings 'purple revolution' to farmers in J&K's Doda

CSIR –IIIM

14 June, 2020

Tipri (Bhaderwah), Jun 14 (PTI) Giving up the age-old traditional farming of maize crops, 200 progressive farmers residing in the vast hilly slopes of Jammu and Kashmir's Doda have successfully embraced aromatic lavender cultivation that is comparatively more profitable, thereby, starting a “purple revolution” in the district.

The farmers, who are growing lavender under the Union Government's Aroma Mission, said that by adopting farming of unconventional aromatic plants, they are on the path of fulfilling Prime Minister Narendra Modi's dream of "Atmanirbhar Bharat".

To increase the income of small and marginal farmers with primary focus of research on drug discovery from natural products, the Council of Scientific and Industrial Research (CSIR) initiated Aroma Mission to popularise aromatic crops and provide end-to-end technology and value-addition solutions to farmers across the country.

A native crop of Europe, lavender was introduced by Indian Institute of Integrative Medicine in the temperate regions of the Jammu division under CSIR-Aroma Mission in 2018 and tried to popularise it in Doda, Kishtwar, and Rajouri districts.

Finding suitable cold climate and favourable growing conditions, 200 small and marginal farmers of Bhadarwah region of Doda district soon took up the initiative in a big way and started cultivating lavender in their fields at several villages including Tapri, Lehrote, Killar, Koundla, Himote, Saringal, Butla, Nalthi and Nakshari.

"Till March 2020 under CSIR-Aroma Mission, quality planting material (QPM) of eight lakh rooted plants of lavender were provided free of cost to 500 farmers in the Jammu region for 100 acres of land," said Sumeet Gairola, Senior Scientist, CSIR- IIIM Jammu.



Besides giving them technical support, free essential oil distillation facilities were provided to the farmers of Bhadarwah and through CSIR-IIIM interventions, they have produced more than 800 litres of lavender oil worth Rs 80 lakh from 2018 to 2020, he said.

After the Ministry of Science and Technology's initiative which has started paying rich dividends to small farmers, Gairola said local entrepreneurs have also started encouraging lavender producers by providing them the required infrastructure at their doorsteps to extract oil and the appropriate market to sell it.

"We have been encouraging farmers of Bhaderwah since 2010 to adopt cultivation of aromatic plants, keeping in view economic, infrastructure, and conceptual need. We have installed five distillation columns in different villages of Bhadarwah beside providing them access to sell their produce in the international market," proprietor of Natural Essential Oils, Touqeer Bagban, said.

He said over 100 acres of land belonging to 200 farmers have been brought under cultivation of aromatic plants especially lavender.

"We are working hand in hand with IIIM-CSIR Jammu supporting production of aromatic products to fulfill the Prime Minister's view of Atma Nirbhar Bharat," Bagban added.

He said farmers have already started harvesting and distillation of lavender in Bhadarwah. "Due to favourable weather and timely rains, they are having a bumper crop and expecting good return as the cost of lavender oil is Rs 10,000 per litre," he said.

Sarpanch Neota-Karyan Om Raj said the farmers were initially a bit apprehensive as they have been growing maize for generations.

"Today, I feel proud of my decision of adopting lavender farming as my income has grown 100 times. Now, not only me but all my fellow villagers have switched from maize to lavender farming," he said.



Several women who switched over to lavender farming are a happier lot as well as they spend very little time in the fields and can utilise their time in other activities.

"Lavender farming turned out to be a purple revolution for us, as for women, it means investing less effort and making more money. Now, we can give extra time to our children and they can concentrate more on their studies," local resident Babli Devi said.

Having an incredibly aromatic smell, lavender flowers have a soothing scent featured in a variety of merchandise, which provides a range of profitable outlets for small-scale producers.

Unlike many other seasonal crops, producers can dry lavender for ornamental flower arrangements, wands, sachets or potpourri, or transform the dried flowers into value-added products such as essential oils, tinctures, soaps or lotions. It's also useful in baking and makes tasty honey, according to experts. PTI CORR TAS HDA



## **CSIR-NAL is hiring for Scientist and Senior Scientist posts: Earn upto Rs 1.19 lakh, apply now @ [nal.res.in](http://nal.res.in)**

CSIR –NAL

14 June, 2020

**The CSIR-National Aerospace Laboratories (CSIR-NAL) has invited candidates for Scientist and Senior Scientist vacancies.**

SIR-NAL Recruitment 2020: The CSIR-National Aerospace Laboratories (CSIR -NAL) has invited all the interested candidates for the post of Scientist and Senior Scientist in various disciplines in the area of Design, Development, Testing and Evaluation of various Systems /Subsystems and Project Management.

All the candidates can apply for CSIR-NAL Recruitment 2020 on or before July 6 on the official website, the link for which is [nal.res.in](http://nal.res.in)

CSIR-National Aerospace Laboratories (CSIR-NAL), Bengaluru, is a premier Research Laboratory under Council of Scientific and Industrial Research (CSIR), an autonomous body in the Ministry of Science and Technology under the Government of India.

### **Vacancy details of CSIR-NAL Recruitment 2020:**

- Scientist: 3 posts
- Senior Scientist: 10 posts

### **How to apply for CSIR-NAL Recruitment 2020:**

- Log on to the official website, [nal.res.in](http://nal.res.in)
- On the homepage, under 'Latest Updates,' click on "ADVT. NO. 6/2020 APPLY ONLINE BEFORE 6TH JULY 2020"
- Read complete information and click on, "Click here to Apply ONLINE"
- Fill in the application form and pay the application fee
- Click on submit and take print out of the online submitted application form.



**Note:** The print out copy of online application registration form duly signed together with recent passport size photograph, Application Fee, copies of Matriculation/SSLC/Degree/Post Graduate Degree/PhD /Provisional Degree certificates (s) and Marks Cards for all Semesters/years and other testimonials in support of Date of Birth, Qualifications, Experience etc. should be sent in a sealed cover superscribing:

"Application for the post of Scientist/ Senior Scientist, Post Code No.\_\_\_\_\_, Advt. No. \_\_\_\_\_" ON OR BEFORE 6 th JULY 2020 addressed to: The Controller of Administration CSIR-National Aerospace Laboratories, Post Bag No. 1779, HAL Airport Road, Kodihalli, Bengaluru - 560 017 (Karnataka).

**Pay scale:**

Scientist: Level 11 in the Pay Matrix of 7th CPC (Rs 1,03,000 approximately)

Senior Scientist: Level 12 in the Pay Matrix of 7th CPC (Rs 1,19,000 approximately)

**Important dates to remember:**

Last date to apply: July 6

**Direct links:**

[Official notification](#)

[Apply online](#)



## Photography Competition on Medicinal & Aromatic Plants Announced by CIMAP

CSIR –CIMAP

14 June, 2020



Some of the medicinal and aromatic plants are incredibly beautiful and some are not commonly found. Their intrinsic value to the health & well-being of human beings and animals has also been well established over the years. At the same time, not many of us are fully aware of the usefulness and medicinal value of most of these plants.

In an effort to create awareness about the usefulness of these plants, the Central Institute of Medicinal and Aromatic plants (CIMAP) have announced a photography competition on medicinal and aromatic plants. Through this competition, CIMAP also wants to convey the message of conservation of these medicinal plants.



## **Photography Competition on Medicinal & Aromatic Plants: Theme**

The theme of the competition is 'Know your Medicinal and Aromatic Plants (MAPs)'. The winners will receive cash awards of Rs. 5000, Rs. 3000, and Rs. 2000 for first, second, and third prizes, respectively. In addition, there will be consolation prizes of Rs. 1000 each for another 10 entries.

### **Who can participate in the competition?**

The competition is open to all Indian amateur and professional photographers. Up to three photographs may be submitted for each entry. Indigenous plants are preferred and the Institute has requested to avoid images of very common horticulture or ornamental plants.

### **Criteria:**

Each photograph should have correct Latin and vernacular name of the plant and its medicinal and aromatic importance in about 20-30 words. Only the original digital images will be accepted but entries have to accompany with colour prints printed on an A4 page and unmounted. Digital image entries must not be less than 3 MB size with minimum resolution of 300 dpi. The images should be in JPEG or TIFF format and the display resolution should be 1086 x 768 and the longer side should not be more than 1086. The raw image files might be asked for at a later date if screened for awards.

The participant has to make a self-declaration that the images have been shot by the person sending the mail for gaining entry into the competition. The copyright of winning images will remain with the photographer, but CIMAP will have the right to exhibit the entries and use them in publicity materials for the promotion of medicinal and aromatic plants.

The winners will be chosen by judges nominated by the Director, CSIR-CIMAP, Lucknow. The decision of the judges will be final. The winners will be announced on the Annual Day of CSIR-CIMAP.

Digital images should be e-mailed at [pc@cimap.res.in](mailto:pc@cimap.res.in). The last date of submission of the entries is June 30, 2020. For more details of the competition, one can visit [www.cimap.res.in](http://www.cimap.res.in).

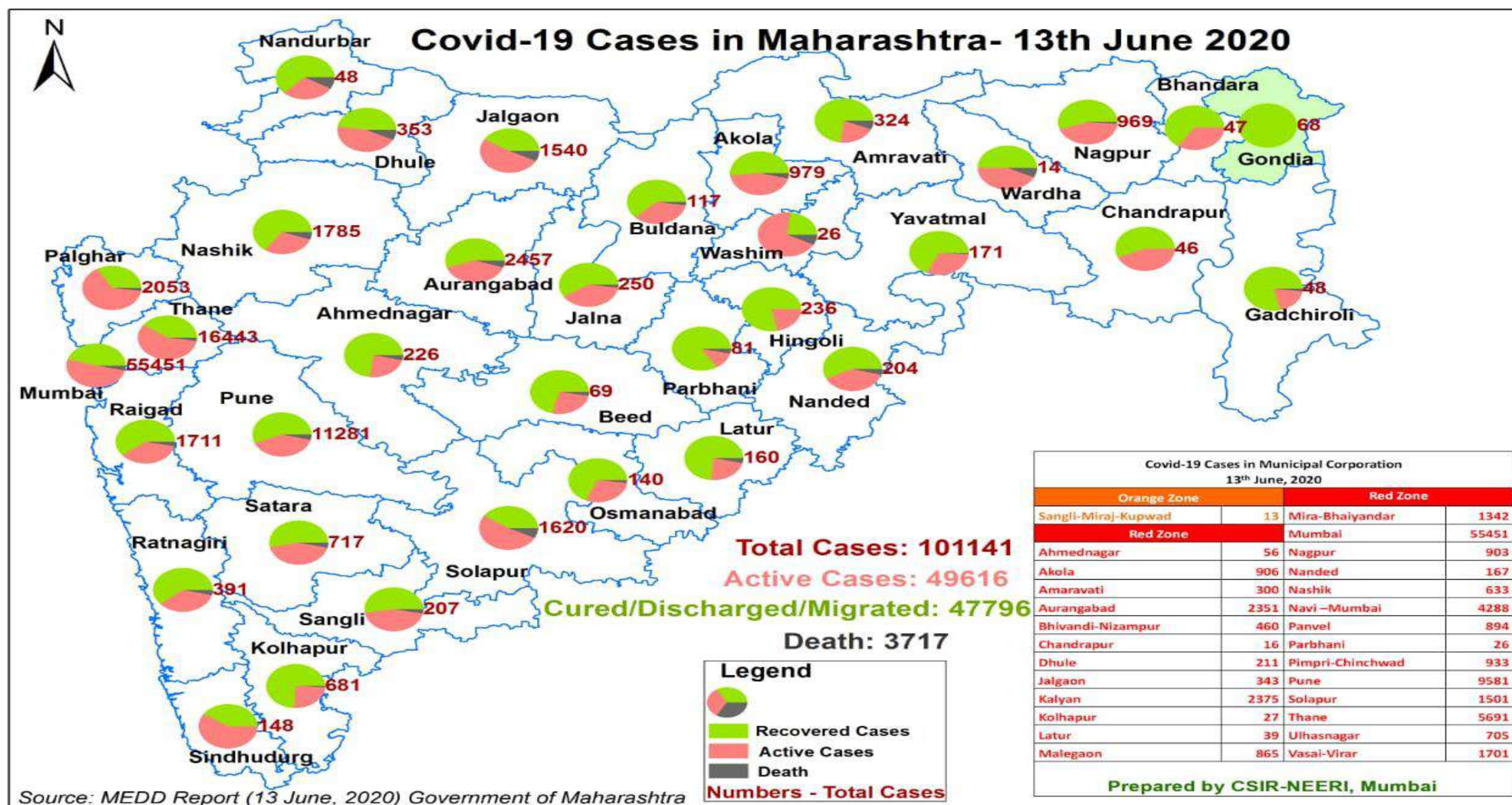
**Published in: [Krishijagran](#)**



## Maharashtra records 3,427 new cases; COVID-19 tally at 1,04,568, total 3830 deaths

CSIR -NEERI

13 June, 2020



Maharashtra yesterday became the first Indian state to have 1 lakh coronavirus confirmed cases.

**Mumbai:** Maharashtra, the worst-COVID-19 affected Indian state reported 3,427 new coronavirus infections on Saturday (June 13) that took the State's total to 1,04,568. Maharashtra now has 51,392 active cases.

The State's **death count** also surged by 113 to 3,830 in the last 24 hours.

A total of 1,550 patients were discharged today, taking the number of recovered cases to 49,346.



The COVID-19 recovery rate now stands at 47.2%, while the fatality rate is at 3.7%.

Maharashtra yesterday became the first Indian state to have 1 lakh coronavirus confirmed cases.

CSIR-NEERI, Mumbai prepared a map showing COVID—19 cases in Maharashtra by June 13 morning.

Earlier today, Maharashtra's Health Minister Rajesh Tope capped the maximum price for COVID-19 tests (RT-PCR), which is conducted to detect coronavirus, at Rs 2,200.

Tope said that with this move, the cost of RT-PCR tests in Maharashtra has become the lowest, compared to any other state, in the country.

The minister said that private labs had been given permission to conduct RT-PCR tests, for which they were earlier charging approximately Rs 4,500 for reports and extra for home collection of samples.



## Hyderabad: CCMB develops method to diagnose leukaemia

CSIR –CCMB

13 June, 2020

### OLD METHOD WAS PAINFUL

➤ The CCMB team said microRNAs have potential to become important diagnostic tools for identifying and monitoring clinical outcome in patients with acute lymphocytic or lymphoblastic leukaemia



➤ At present, diagnosis is carried out using peripheral blood or bone marrow specimens

➤ This process is cumbersome and painful, while the CCMB method is simple and makes it easy to detect this type of cancer

**HYDERABAD:** In a major relief for people suspected to have got cancer, scientists at the Centre for Cellular and Molecular Biology (CCMB), Hyderabad, have developed a method that will do away with the painful process of extracting bone marrow to diagnose the cancer of lymph. The scientists have found biomarkers for the cancer of lymph or acute lymphocytic leukaemia (ALL) to diagnose the disease without extracting the bone marrow for test.

The CCMB team said microRNAs or small RNA molecules have the potential to become important diagnostic tools for identifying and monitoring clinical outcome in patients suffering from acute lymphocytic or lymphoblastic leukaemia. At present, diagnosis carried out using peripheral blood



or bone marrow specimens. This process is cumbersome and painful, while the CCMB method is simple and easy to detect this type of cancer.

The CCMB team has used microRNAs as diagnostic tools. MicroRNAs are small non-coding RNAs that play an important role in the regulation of gene expression. Abnormal gene expression by microRNAs is correlated with the initiation and progression of many types of cancers.

Using these biomarkers, the CCMB scientists identified two sub-types of ALL – T-ALL and B-ALL in children. The team comprised Lekha D Kumar, Shrish Tiwari and their lab members. They validated 51 novel miRNAs that can be used as biomarkers for not only diagnosing but also following the course of leukaemia. The new method has a potential to replace the painful bone marrow tests and costs of antibody tests.

According to the scientists, ALL is one of the most common diseases observed in children. It is a complex blood disorder characterised by various underlying genetic abnormalities that block B (bone marrow) or T (thymus) cell differentiation and support abnormal cell proliferation. B and T cells play a role in immune response.

The incidence of ALL is about 60% of all acute leukaemia cancers in children. “Increasing evidences suggest the involvement of microRNAs in the development of different types of leukaemia. Therefore, we aimed to identify novel signatures that could be used to classify the T and B subtypes and establish blood-based microRNAs for potential diagnostic and prognostic markers for childhood ALL in future,” the scientists said. The study was published in the latest issue of the scientific journal ‘Translational Oncology’.



## Experts to analyse Lonar lake water to know why it turned pink

CSIR –NEERI

13 June, 2020



A team of scientists from the city-based National Environmental Engineering Research Institute (NEERI) will visit the Lonar lake in Maharashtra's Buldhana district next week and collect its water samples to analyse why it has turned pink, an official said.

The oval-shaped Lonar lake, formed after a meteorite hit the Earth some 50,000 years ago, is a popular tourist hub and also attracts scientists from across the world. The mean diameter of the lake is around 1.2 km.

The colour of the lake water has recently turned well. pink, which has not only surprised locals, but nature enthusiasts and scientists as well.

Some experts have attributed it to the salinity and presence of algae in the water body. They have said that this is not the first time the colour change has happened, although it is more glaring this time.

When contacted, Buldhana Collector Suman Chandra said, "Lonar lake comes under the jurisdiction of the forest department as it has been declared a sanctuary. The department has sent water samples to NEERI. Nonetheless, the institute will be sending a team of scientists to the site on June 15 to collect samples for analysis."

"They will analyse the water to know the exact reason behind the change in its colour," she said.

Lonar crater lake was identified as a unique geographical site by a British officer named C J E Alexander in 1823.

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



## CSIR-National Aerospace Laboratories Invites Application For Scientist Posts

CSIR –NAL

13 June, 2020

National Aerospace Laboratories (NAL), a premier research laboratory under the Council of Scientific and Industrial Research (CSIR), has invited application for Scientist and Senior Scientist posts. CSIR-NAL will fill 13 vacancies in various disciplines like Design, Development, Testing & Evaluation of various systems/ sub systems and project management.

[Apply Online](#)

The last date for submission of application is July 6.

Candidates must have ME/M.Tech or PhD qualification in the relevant discipline. Candidates should also have relevant years of work experience.

"The selected candidates will be on probation for a period of one year from the date of taking over charge of the post. The probationary period may be extended or curtailed at the discretion of the Competent Authority. After successful completion of probationary period, they will be considered for confirmation in accordance with the extant rules," reads the job notice.

A non-refundable application fee of Rs.100 is payable separately for each post (candidates belonging to SC/ ST/ PwD, Women and regular employees of CSIR are exempted from payment of application fee) in the form of online payment, the job notice adds.

Candidates should send the printout of the online application form along with relevant documents to the NAL office.

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



## **OIL to investigate tremors near Baghjan blowout site**

CSIR –NEIST

13 June, 2020

**DIBRUGARH:** Amid reports of tremors in villages close to the Baghjan blowout site, Oil India Limited (OIL) has contacted the North East Institute of Science and Technology (NEIST), Jorhat, to carry out a study.

Since June 9, when the Baghjan gas well caught fire, residents of several nearby villages like Natungaon and Natun Rangagora have been experiencing constant tremors in the area. According to residents, the shock waves come in phases, mostly at night, which have led to cracks in walls and pillars.

"Several villagers have fled in panic and have taken shelter in relief camps. Our whole house shakes. It's like several small earthquakes coming one after another. We are passing sleepless nights and our kids are afraid," said Manoranjan Bora, a local of Natungaon. His village is located barely 2 km from the Baghjan well. Following the blowout at the well, OIL has already declared the 1.5-km radius as a danger zone. All residents have been evacuated from the area.

"There were some reports of tremors in nearby villages. We have contacted North East Institute of Science and Technology (NEIST), Jorhat, to carry out a study to see if there is any induced seismicity due to the blowout," OIL in a statement said.

On Friday, two more relief camps were set up at Guijan and Dhelakhat area taking, the total number of relief camps to 14. Over 7,000 displaced people have taken shelter in the camps.

On preparations for capping the well, OIL said, "The detailed draft plan of well control operation drawn up by the team of experts from M/s Alert, Singapore along with ONGC and OIL team has been submitted to the petroleum ministry. The first load of equipment mobilised from ONGC-Sivasagar has reached Duliajan and will be sent to the site after inspection by the experts. Rest of



the vehicles are expected to reach Duliajan today. Vehicle carrying equipment from ONGC-Rajamundry crossed Palasa and was approaching Odisha border as per morning report at 07:30 hours. The CM is taking stock of the situation and has assured all assistance.”

Earlier on Thursday night, state industries minister

Chandra Mohan Patowary, Union MoS of food processing industries Rameswar Teli, Duliajan MLA Terosh Gowala and Tinsukia deputy commissioner Bhaskar Pegu had a detailed discussion at Duliajan with OIL CMD Sushil Chandra Mishra and Michael E Allcorn of Alert Disaster Control on the present status and action plan for capping the well.



## CSIR-IICT working on drug compounds to fight coronavirus

WHO identifies 25 drugs to be repurposed and tested

SPECIAL CORRESPONDENT  
HYDARABAD

Since drug discovery takes many years, scientists are repurposing drugs that have been used to contain various flus or diseases across the world.

The World Health Organisation (WHO) identified 25 such drugs to be repurposed and tested to battle COVID-19.

Among them, the Council for Scientific & Industrial Research (CSIR) had identified five compounds

### COVID-19

and began working on them, said top scientists of the Indian Institute of Chemical Technology (IICT) on Friday.

The CSIR-IICT work on compounds Favipiravir, Remdesivir, and Umifenovir included developing a process technology to make them available at affordable costs in the market, once they are cleared by the regulatory authority, they said, during the webinar organised by the institute for students and others on current scenario on drug discovery and safety protocols to contain COVID.

IICT director S. Chandrasekhar said scientists stood strong during lockdown to find solutions to

combat the virus.

CSIR-IICT scientists have been working continuously to ensure a speedy solution in the form of drugs and protection gear to reach the society at affordable prices. Masks and face shields developed at the institute are for common men, he said.

Time taken for any drug to come to the market is about eight to 12 years, and can cost approximately ₹10,000 crore. This process involves many steps right from identifying a molecule to trials and permissions. Utmost importance, while developing a drug, is given to safety and toxicity of the drug, he explained. While there is no drug for COVID-19, science and technology developed over the years has helped in identifying the virus and possible solutions to contain it. He advised students to maintain social distancing and follow self-hygiene to defeat the spread.

Senior principal scientists Ch. Raji Reddy and Prathama S. Mainker spoke on repurposing of drugs. Another senior principal scientist Anthony Adiga detailed the working of RT-PCR testing kits for COVID-19 while his colleague S. Sridhar demonstrated the use of masks and face shields developed at a low cost.

Scientist Ramaraj Narayan moderated the webinar and explained the importance of maintaining good hygiene and following preventive measures.



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[www.ntnews.com](http://www.ntnews.com)

ప్రజల ఆరోగ్య సమస్యలను పరిష్కరించేందుకు వేగంగా ఔషధాలను అభివృద్ధిచేసి,  
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## CCMB develops way to better diagnose Type 1 diabetes

CSIR –CCMB

12 June, 2020



The researchers from CCMB, KEM Hospital, Pune and University of Exeter, UK, in prestigious science journal Nature, have shown that a genetic risk score is effective in diagnosing type 1 diabetes among Indians. The genetic risk score, developed by the University of Exeter, considers detailed genetic information known to increase the chance of developing type 1 diabetes. The score could be used at the time of diabetes diagnosis to help decide if someone has type 1 diabetes.

**Hyderabad:** A new way of using genetics to identify diabetes could pave the way for better diagnosis and treatment among Indians, recent research from geneticists of Hyderabad-based Centre for Cellular and Molecular Biology (CCMB) has concluded.

Up to now, the bulk of research in this field has been conducted in European populations but now researchers have analysed whether the European risk score is effective in diagnosing type 1 diabetes in Indians. The team analysed 262 people with type 1 diabetes, 352 people with type 2 diabetes, and 334 people without diabetes.

Distinguishing type 1 and type 2 diabetes is a complex process and both entail different treatment regimens. Misdiagnosis of diabetes could be an issue in India because of features of diabetes among Indians might vary from the standard western textbooks. The CCMB researchers now have figured-out a way to effectively diagnose type 1 diabetes among Indians.

“Since more than 20 per cent of people with type 1 diabetes below the age of 15 years of age are in India, developing a genetic test kit to reliably detect type 1 from type 2 diabetes holds a lot of significance for the country,” said CCMB Director, Dr RK Mishra.



Dr GR Chandak, CCMB Chief Scientist, Dr Chittaranjan Yajnik, KEM Hospital and Research Centre, Pune, Dr Richard Oram, University of Exeter Medical School were involved in the study.



## India to have own genome data bank to decode COVID-19 virus

CSIR –IGIB

12 June, 2020



**NEW DELHI:** India will have its own COVID-19 genome data bank with the Institute of Genomics and Integrative Biology (IGIB) pooling all 600 Indian genomes for researchers to understand the genomic variants of the variants and their properties.

This can give insights into developing better and efficient diagnostics as well as vaccines against the virus.

The IGIB has proposed a collaborative resource IndiCoV, an open data source, to ensure that the genome data is appropriately organised and

annotated to researchers so they can make best use of it.

Over 600 genomes of clinical isolates are currently available in the public domain from India, covering over 21 states and Union territories and deposited by 19 laboratories and institutions across the country.

According to Vinod Scaria, Genomics Scientist, IGIB, one of the approaches where scientists have come together to understand the epidemiology of the Covid-19 is through genome sequencing of the pathogen.

Closely following the outbreak in Wuhan, researchers from China shared the high quality genome sequence of the virus, now popularly known as the Wuhan Hu 1 isolate and widely considered as the reference genome.

“The availability of genomes also opens up new challenges and opportunities for researchers in the country and across the world, the major challenge being able to make



sense of the genomic data available to provide interesting insights into the epidemiology and evolution of the virus. Additionally, the genomic sequence can provide us interesting insights into the dynamics of the epidemic and potentially allows for molecular contact tracing,” he said.



## **Top 5 Govt. Jobs of the Day–12 June 2020: Apply for 400+ CIMFR, Goa PSC, SKIMS, TTWREIS Telangana and VMC**

CSIR –CIMFR

12 June, 2020

If you are preparing for the government job then you should look at these top 5 government jobs announced today, 12 June 2020 for 400+ more than vacancies in CSIR -Central Institute of Mining and Fuel Research (CIMFR), Goa Public Service Commission (GPSC), Sher-I-Kashmir of Medical Sciences (SKIMS), Telangana Tribal Welfare Residential Educational Institutions (TTWREIS) Hyderabad and Vadodara Municipal Corporation (VMC) Recruitment have released these government jobs for aspirants.

CSIR -Central Institute of Mining and Fuel Research (CIMFR) has invited applications for the Project Assistant Level I and II posts. Interested applicants can apply for CSIR -Central Institute of Mining and Fuel Research (CIMFR) Recruitment 2020 through the given format on or before 01 July 2020.



## Webinar on Covid-19 held at IICT in Hyderabad

CSIR –IICT

12 June, 2020

Hyderabad: Director of Indian Institute of Chemical Technology (IICT), Dr. S Chandrasekhar on Friday praised the scientific community for rising to the occasion during the Covid-19 pandemic.

In a webinar on ‘Mitigation of Covid -19: Testing, Drugs, Vaccines, PPEs & Self-Hygiene’, Dr Chandrasekhar said that scientists stood strong during lockdown to find solutions to combat Covid-19.

“IICT scientists worked continuously to ensure a speedy solution in the form of drugs and protection gear to reach the society at affordable prices. The masks and face shields developed by us are for common man,” he said. Dr Chandrasekhar said that science and technology developed over the years has helped in identifying the Covid-19 virus and possible solutions to contain it.

Senior Principal Scientists, IICT, Dr Prathama S Mainker and Dr Ch Raji Reddy spoke on the journey of drug discovery and drug repurposing respectively.

“IICT is working on the compounds Favipiravir, Remdesevir and Umifenovir to develop a process technology to make them available at affordable costs in the market, once they are cleared by the regulatory authority,” Dr. Raji Reddy said.

Dr Anthony Addlagatta, Senior Principal Scientist, detailed the working of RT-PCR testing kits for Covid-19 while Dr S. Sridhar, Senior Principal Scientist, demonstrated the use of masks and face shields developed at a low cost by IICT.

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## Diploma Programmes at Indo-Swiss Training Centre: Apply by 15th June

CSIR –CSIO

12 June, 2020

Indo-Swiss Training Centre CSIR-Central Scientific Instruments Organisation (Council of Scientific & Industrial Research, Ministry of Science and Technology, Govt. of India) Sector 30-C, Chandigarh-160 030, has invited online applications for various Diploma Courses duly approved by AICTE, New Delhi being conducted by the Training Centre for 2020-21 session.

The Programmes are (i) 3-Year Diploma in Mechanical Engineering (Tool & Die) (ii) 3-Year Diploma in Electronics Engineering (iii) 4-Year Advanced Diploma in Mechatronics & Industrial Automation

Eligibility: Applicant should have passed Matriculation or equivalent examination from recognized school/board. Those who have appeared in the Matriculation Examination are also eligible to apply. Those born on or after 1st August, 2001 (1st August, 1998 for SC/ST categories) are eligible to apply.

Selection to the Programmes will be based on an Entrance Test to be held on 19th July, 2020 (Tentative) at Chandigarh. The ISTC entrance examination will comprise of objective multiple choice questions from Mathematics, Science, Aptitude, English and General Knowledge. Questions will be of CBSE 10th Class standard or equivalent. 25% of the allotted marks will be deducted for each wrong answer.

Application: Application is to be submitted online at <https://career.csio.res.in/istc192020/> latest by 11.59 pm on 15 June 2020.

Entrance Fee of Rs 1200/- for General/OBC and Rs.600/- for SC/ST Candidates is to be paid online/offline through <https://www.onlinesbi.com/sbicollect/icollecthome.htm>



The total number of seats is 140. Reservations will be as per Govt. of India rules

The result of the Entrance Test will be declared and displayed at ISTC by 22 July 2020 (tentative). It will also be available on institute websites [www.istc.ac.in](http://www.istc.ac.in) or 'News link' at [www.csio.res.in](http://www.csio.res.in).



# NEERI, DLSA to teach sanitisation techniques to migrant labourers

## ■ Staff Reporter

IN ACCORDANCE with the Supreme Court directives to States to formulate employment schemes for workers to rehabilitate them, CSIR-National Environmental Engineering Research Institute (NEERI) has joined hands with District Legal Services Authority (DLSA), Nagpur and NGOs to impart training in sanitisation techniques to homeless and migrant labourers staying in Nagpur.

A meeting was held at CSIR-NEERI on Thursday in this regard. Judge Abhijeet Deshmukh, Secretary of DLSA; Dr Rakesh Kumar, Director, CSIR-NEERI; Dr J S Pandey, Chief Scientist and Head, Climate Change and Skilling Division, CSIR-NEERI; Dr Sadhana Rayalu, Chief Scientist and Head, Environmental Materials Division, CSIR-NEERI; Arshad Tanvir Khan, International Skill Development Society; Sameer Patel, Sarim Constructions; Amithabh Pawde, Aapulki Samajik Sanstha; Dr Sameer Deshpande; and Dr Pradeep Salve, Senior Principal Scientist, CSIR-NEERI attended



Dr Sameer Deshpande, Dr Sadhana Rayalu, Dr J S Pandey, Judge Abhijeet Deshmukh and others during a meeting of NEERI and DLSA held on Thursday.

the meeting.

During the discussion, the participants emphasised that before the re-opening of schools, colleges, hotels, etc, all these institutions should be properly sanitised. For, many schools, especially Government and Zilla Parishad schools have been used to quarantine COVID-19 suspects and shelter migrant workers. DLSA and NGOs pointed out that various Government and private organisations would henceforth seek routine and standard environmental sanitisation procedures, and CSIR-NEERI could play a major role in bringing out a policy document. CSIR-NEERI could also be instrumental in

imparting sanitisation training to homeless and migrant labourers for providing them employment opportunities.

CSIR-NEERI agreed to work with DLSA and NGOs for the betterment of homeless and migrant labourers, not only with respect to imparting training in sanitisation techniques but also for various environmental aspects having employment potential.

Dr Rakesh Kumar said that epidemiology relied on a working knowledge of probability and statistics. He reiterated that an effective policy should be formulated for cleaning and disinfection of various places, wherever really required. He emphasised on

the need to bring out training material in three languages -- English, Marathi, and Hindi. Pawde expressed concern over ever-increasing quantity of disinfectants into environment. Dr Rayalu briefed about science and technology efforts undertaken by CSIR-NEERI to combat COVID-19.

Earlier, Dr Suvha Lama, Scientist, CSIR-NEERI, spoke on how to clean and disinfect the workplaces. Dr Shilpa Kumari, Scientist, CSIR-NEERI, informed that CSIR-NEERI already imparted training to various NGOs on how to prepare reusable masks according to WHO guidelines. She also demonstrated various systems and devices by which disinfection could be done. Dr Pratap Reddy Maddigapu, Project Scientist, CSIR-NEERI, said that a disinfection device designed by using UV-C technology could be used to disinfect used masks, used hand-gloves, papers, documents, files, etc. After giving them proper training, the homeless and migrant labourers could be engaged in such disinfection methods for their livelihood, he added.

Dr J S Pandey co-ordinated the meeting.

CSIR





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