





NEWS BULLETIN 01 TO 05 JANUARY 2022





Compiled by Science Communication and Dissemination Directorate (SCDD), CSIR, Anusandhan Bhawan, New Delhi



Union Minister Dr Jitendra Singh Launches The Platinum Jubilee Celebrations Of CSIR-National Physical Laboratory



04th January, 2022

Delhi: Union Minister of New State (Independent Charge) Science & Technology; Minister of State (Independent Charge) Earth Sciences; MoS PMO, Personnel, Public Grievances, Pensions, Atomic Energy and Space, Dr Jitendra Singh today released a Special Postage Stamp commemorating the 75th Platinum Jubilee year of CSIR-National Physical Laboratory (NPL) New Delhi, which



is one of the earliest CSIR laboratories that was set up around the time of independence and its 75th year coincides with the 75th year of India's independence.

The Minister also dedicated the nation 'LED Photometry Laboratory' at CSIR-National Physical Laboratory, New Delhi to fulfill Prime Minister Narendra Modi's vision to develop energy-efficient illumination technology. He also inaugurated Science Exhibition by school students and interacted with them on the demonstrated themes and subjects.

Later, addressing the galaxy of scientists and students, Dr Jitendra Singh said that CSIR-NPL is a monumental illustration of India's incredible scientific journey in the last 75 years. He said, the Platinum Jubilee celebration is coinciding with the "Azadi Ka Amrit Mahotsav" launched by Prime Minister Narendra Modi. It is also an occasion to plan for the next 25 years with conscious realisation that science and technology is going to be the main currency for the inclusive growth of India.

The Minister said that PM Modi has a special aptitude for science driven developments, which has enabled all the scientific programmes to concentrate on applications which are relevant to





bring "Ease of Life" to the common man. Dr Jitendra Singh said that all the six Science & Technology (S&T) departments including Space and Atomic energy and the Autonomous Institutes have contributed hugely in the fight against COVID-19 through the research for development of vaccines, genome sequencing and other protocols. He said, the first DNA

vaccine trial was done by the Department of Bio-Technology and it has again taken the lead for the Omicron Virus.

The Minister also recalled the role of ISRO for providing Liquid Oxygen continuously on a large scale to several State governments from their own manufacturing facilities or from the existing stock. Similarly, he added that the Department of Atomic Energy developed re-usable PPE kits and N-99 masks using HEPA filter technology.

In his concluding remarks, Dr Jitendra Singh said that three important tasks of integration of

different Science Streams among themselves and with the general line Ministry Streams in due course, speedy conversion of lab technologies for use by common man at affordable costs and giving proper recognition to Scientists have become a necessity to achieve at the earliest.

Referring to the 'LED Photometry Laboratory' at CSIR-NPL, Dr Jitendra Singh said, this national level facility would contribute to making India 'Atma-Nirbhar' in the apex level calibration and testing of LED lighting products. These will not only save the foreign exchange spent on availing testing and calibration services from abroad but also significantly reduce turn-around time.

The Minister also released BharatiyaNirdeshakDravya (BNDs) to support the testing and calibration laboratories for quality assurance at par with the international standards for high purity gold, silver and other elements. He also launched Certification Process for Indian made Ambient Ozone Analyzers.

Among other releases to mark the Platinum Jubilee celebrations, DrJitendra Singh launched the Calibration Facility for Infusion Pump Analyzer used for testing the infusion pump. He





also launched Certification Process for Indian Made Low-Volume PM2.5 Sampler to fight pollution. The Minister launched the Responsive Website of CSIR-NPL, the aim of which is to showcase and disseminate the details about the Metrology-related activities of CSIR-NPL, in a fully responsive and more appealingly designed format.

DG CSIR, Dr.Shekhar C. Mande, Director CSIR-NPL, Professor Venugopal Achanta, Ashok Kumar, Post Master General, Dr C.Sharma, Senior Scientist, CSIR and other Scientists, Students and Officials took part in the event.



Published in:

India Education Diary





04th January, 2022

ICMR approves first kit to detect Omicron – Tata's OmiSure

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The Indian Council of Medical Research (ICMR) has approved a kit that will be used to detect Omicron. The kit is manufactured by Tata Medical and Diagnostics and is named OmiSure. The approval came on December 30.

Currently the kit that is being used to detect the Omicron variant in India is developed by USbased scientific instrumentation company Thermo Fisher. It uses the S Gene Target Failure (SGTF) strategy to detect the variant.

'S' Gene, ORF, 'N' gene, Rdrp, 'E' gene etc are viral genes that are targeted to detect COVID-19

virus. In case of the Omicron variant, the 'S' gene does not get detected in Thermo Fisher's Taq Path RT-PCR test due to mutation in the gene, while other gene targets such as ORF gene and N gene get detected. Krishna Khairnar, scientist at Nagpur-based CSIR-NEERI told PTI, "The occurrence is called 'S' Gene Target Failure (SGTF) positive cases. Such samples can be presumptively reported as Omicron positive and can be sent for fast-track genome sequencing for confirmation."

Moreover ICMR, on December 17, had invited EoI by December 22 for the "transfer of technology for development and commercialisation of SARS-CoV-2 Omicron (B.1.1.529) real

time RT-PCR assay".

In the EoI to develop and commercialise its Omicron detection kit, ICMR stated that it has developed a novel technology to detect Omicron variant and a kit for the same. It said that it is the owner of the said technology including any underlying intellectual property and commercialisation rights.

Published in:

Business Today





BPCL, IICT Hyderabad signs Agreement to develop innovative Bioreactor design





New Delhi: Bharat Petroleum Corporation Limited (BPCL) signs Memorandum of Agreement with CSIR - Indian Institute of Chemical Technology, Hyderabad to develop innovative Bio-reactor design to produce Compressed Bio-Gas from agricultural waste residues, such as wheat straw, rice straw, sugarcane bagasse, etc. The CSIR-Indian Institute of Chemical Technology is a



national-level research center located in Hyderabad, Telangana, India under the Council of Scientific and Industrial Research (CSIR).

This agreement will not only reduce India's dependency on crude oil imports but also enhance farmers' income and rural employment. The solid by-product of the process can be used as "Manure".

The MoA was inked by Dr. V Ravi Kumar, Chief General Manager (Research & Development), BPCL and Dr. D. Shailja, Chief Scientist & Head, Business Development & Research Management, CSIR-IICT on 23rd December 2021 in the presence of senior officials from both the organization.

Published in:







'Startups will be important vehicles for tech transfer from lab to industry





Dr Ashish Lele, director, CSIR-National Chemical Laboratory (NCL), said Monday that the fast pace of digitisation will significantly affect the country's science and technology sector. He was speaking at the 72nd foundation day function of CSIR-NCL.

"Startups working in deep technology and other areas are emerging. For R&D institutions like NCL, startups will be important vehicles in performing technology translation from the lab to the industry," said Lele, who also shared the institute's vision plan for 2020-2030.

The premier chemistry lab will focus on fewer but important research areas with energy and

healthcare remaining key in the upcoming years, Lele said. To mark the foundation day, Subroto Bagchi, chairman, Odisha Skill Development Authority, Odisha, spoke on 'NCL at 100: Building memories for the Future'.

The Covid-19 pandemic brought collaborations among numerous Indian research institutions and set the ball rolling at a scale like never before, experts said. "Research and development across institutions, sectors and locations are happening at a pace like never before. Science and technology, too, will be significantly affected by digitisation and

we must be aware," he said.

CSIR chief Shekhar Mande said NCL has played a critical role and remains among the finest institutions in chemistry.

Lele suggested that more dedicated research be taken up across three areas — healthcare, agritechnology and allied services and Industry 5.0 — and that India has great potential. "We have not put enough of our heads into disease biology, disease diagnostics, drug discovery and delivery but there is potential," he said.





For science and research to keep up to the society's needs, there will be a need for an ecosystem, hiring of the best of scientists from around the world, enabling mechanisms like training students and having the right governance practices, he added.







ICPURE Develops First Immunity Booster Alkaline Ionized Water of India In Collaboration With CSIR-IICT





January 3: Immunity boosters have once again become the buzzword among the denizens as the third wave looms big with the huge spike in Covid-19 cases driven by Omicron in India. Thanks to ICPURE (India) for creating India's first alkaline water ionizer in technical collaboration with the Council of Scientific and Industrial Research's Indian Institute of Chemical Technology (CSIR-IICT), which comes under the Ministry of Science and Technology, Govt of India.

The CSIR has certificated that the ICPURE alkaline ionized water is an immunity booster, which helps in the prevention of various infections and diseases. The ionizer produces healthy

drinking water with different pH values above 8 with negative Oxidation Reduction Potential (ORP) to boost the health of the heart, liver, kidney and bone structure.

According to the CSIR, the ICPURE machine has been classified as a next-generation ionized water production machine under the 'Make in India' programme. The heart of this machine, the Ionizer, is made using the best grade of cation transfer membrane and electrode plates based on platinum-coated titanium for efficient ionization with world-class software to match the required parameters as per standards.

Paahen Mittal, CEO, ICPURE (India), said, "Our Tagline is 'ICPURE Piyo, Tandurust Jiyo'. Amid the déjà vu of the third wave of Covid-19 in the country, people have been talking about the immunity boosting methods and immunity boosters. The Alkaline water from ICPURE machine is a certified immunity booster from CSIR-IICT, Ministry of Science and Technology, Government of India."

Mittal added, "We aim to revolutionise the water industry by making ICPURE machines available in every household across the country. Alkaline water from ICPURE machine is





inspired by spring water which is generated via passing a mild current through platinumcoated titanium plates without infusing any chemical or artificial mineral."

The machine gives five different types of pHs ranging from 5.0 to 10.5. Neutral water of 7.0

pH can be used for intake of medicines and consumption by children up to 10 years of age, 8.5 pH gives regular alkaline drinking water by normal persons to regulate pH level in the blood to boost the health of heart, liver, kidney and bone structure with extra minerals and antioxidants, 9.5 pH water can be used for making of tea and coffee making and for cooking purposes, while 10.5 pH water can be used for cleaning of fruits and vegetables to remove pesticides and harmful chemicals.



Two new plant species discovered in Ghats

Researchers from SNM College Maliankara, the M.S. Swaminathan Research Foundation, and the Payyanur College have reported two new plant species from the biodiversity-rich Western Ghats regions in Thiruvananthapuram and Wayanad districts. They have been christened Fimbristylis sunilii and Neanotis prabhuii, and the findings by the research teams have been

detailed in the November and December issues of the plant taxonomy journal Phytotaxa.

Collected from the grasslands of Ponmudi hills, Thiruvananthapuram, Fimbristylis sunilii has been named after plant taxonomist C.N. Sunil, retired professor and research guide of Botany, SNM College.

Data deficient

A perennial plant of the Cyperaceae family, it stands 20-59 cm tall and was collected from an

elevation of 1,100 metres. Fimbristylis sunilii has been provisionally assessed as data deficient (DD) under the IUCN Red List categories, according to the authors M.G. Sanilkumar., E.C. Baiju, Nitya Madanan and Divya P.V., affiliated to the Research Department of Botany, SNM College.

Neanotis prabhuii is a prostrate perennial herb named after K.M. Prabhukumar, Senior Scientist at CSIR-NBRI, Lucknow, in recognition of his research on flowering plants of the Western Ghats and contributions to biodiversity conservation. Discovered in the Chembra Peak grasslands of Wayanad, it hails from the family Rubiaceae and grows on high-altitude

grasslands. Neanotis prabhuii grows up to 70 cm in length and is many-flowered with the petals pale pink in colour, according to authors C.N. Sunil, M.G. Sanilkumar and Nitya Madanan from the Research Department of Botany, SNM College; Anilkumar and Salim Pichan from M.S. Swaminathan Research Foundation; and Ratheesh Narayanan, from the

Department of Botany, Payyanur College.

Neanotis prabhuii has been categorised data deficient (DD) in the absence of any detailed observations and data on populations, the authors said.

Published in:

CSIR-NIO

CSIR-NIO Foundation Day celebration

02nd January, 2022

दोनापावल : वृक्षारोपण करताना प्रा. सुनील कुमार सिंग. बाजूला इतर मान्यवर. 'एनआयओ' वर्धापनदिन उत्साहात पणजी : दोनापावल येथील राष्ट्रीय समुद्र विज्ञान संस्थेने आज ५७ वा वर्धापन दिन साजरा केला. राज्यपाल पी. एस. श्रीधरन पिल्लई यांनी कार्यक्रमाला आभासी माध्यमातून संबोधित केले. राज्यपालांनी राष्ट्रीय समुद्र विज्ञान संस्थेच्या संशोधन कार्याचे कौतुक केले. राज्यपाल म्हणाले, की आर्थिक आणि व्युहात्मकदृष्ट्या दिवसेंदिवस सागरांचे महत्त्व वाढत आहे. सागर विविध स्रोतांचा खजिना असून भूभागापेक्षा सागरी संशोधनावर भर दिला जात आहे.राज्यपालांनी संस्थेच्या अद्ययावत प्रयोगशाळा आणि संशोधन कार्यक्रमाबद्दल अभिनंदन केले.

Published in:

Gomantak, Lokmat, Phudari

भविष्यात संस्थेने सागरी संशोधनात नवनवीन उंची गाठावी, अशा शुभेच्छा त्यांनी दिल्या. तत्पूर्वी संस्थेचे संचालक प्रा. सुनील कुमार सिंग यांच्या हस्ते संस्थेच्या प्रांगणात वृक्षारोपण करण्यात आले. याप्रसंगी संचालकांनी विविध श्रेणीतील पुरस्कार जाहीर केले. यात वैयक्तिक आणि सामुहिक पुरस्कारात डॉ. सत्यवती पनकला राव पुरस्कार, गीता मुखोपध्याय उत्कृष्ठ दीर्घ लेख प्रबंधन (थेसिस) पुरस्कार, आयसीबीएबी उत्कृष्ट पेपर सादरीकरण, एसीएसआयआर उत्तम गुण पुरस्कार, सागर सुक्ती पुरस्कार जाहीर करण्यात आले. प्रधान शास्त्रज्ञ डॉ सनील कुमार यांनी यांनी आभार मानले.

CSIR-IHBT

01st January, 2022

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