CSIR IN MEDIA

CSIR

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21 TO 25 SEPTEMBER 2022

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

Royal Society of Chemistry (RSC) and CSIR work together to support chemistry in schools across India

CSIR-NPL

23rd September, 2022

The Royal Society of Chemistry and the Council for Industry and Scientific Research (CSIR) have partnered to support an outreach programme designed to promote the chemical sciences in schools and universities. About 2000 students across the country participated in RSC's Global Coin experiment organised across over 30 CSIR laboratories.

The two organisations have signed a Memorandum of Understanding (MoU), committing to work together on the CSIR's Jigyasa programme – an India-wide outreach programme aimed at school children and researchers. The MoU will be a non-financial one and will be time-bound for at least three years with an option of renewal.

The CSIR is dedicated to research and development across the spectrum of science and technology – from oceanography and mining to chemicals and nanotechnology. The organisation owns a network of laboratories and outreach centres across India. The Jigyasa programme will complement existing educational programmes in India. For example, the RSC-Jigyasa partnership will help to expand the RSC's existing teacher training programme and Chemistry Camps, and will be launching several online education initiatives.

As part of the launch event for the Jigyasa programme, the collaboration is organising a Global Experiment including all the CSIR's laboratories. At least 2,000 schoolchildren, 150 teachers, and 350 volunteers took part in the 'RSC's Global Coin experiment organised across over 30 CSIR laboratories, in which participants are asked to compare batteries made from different types of coins. The participants will then be able to compare their data with that of participants from around the globe.

The MoU was signed by both organisations at a ceremony on 22 September. It was signed by Dr. Geetha Vani Rayasam from the CSIR and Paul Lewis, Chief Operating Officer, RSC in the presence of Dr N Kalaiselvi, Director General of the CSIR and Dr Venugopal Achanta, Director of National Physical Laboratory (CSIR-NPL). Paul Lewis, Chief Operating Officer of the RSC, said: "Collaboration is at the heart of everything the Royal Society of Chemistry does, which is why I've travelled to Delhi to sign this agreement with CSIR providing a basis for us to work together to promote the chemical sciences across India for many years to come".

Speaking on the occasion Dr. Kalaiselvi, DG, CSIR, highlighted that S&T is a crucial as India aims for self-reliance and sustainable development not only for the country but the world. She delivered a popular science lecture "Insights into future of battery technology" and emphasized that the partnership with RSC will help in dissemination of science among students and motivate them to be future scientists. Ajit Sharma, Manager Director, RSC India, added: "We are excited to have the opportunity to collaborate with the Jigyasa programme, which will bring together the considerable expertise and resources of both the RSC and the CSIR to help to provide enhanced learning opportunities for those studying the chemical sciences in India. Our young people will be solving the global challenges of the future, which is why it's so important to provide them with a solid grounding and practical experience in the sciences."

Royal Society of Chemistry

We are an international organisation connecting chemical scientists with each other, with

other scientists, and with society as a whole. Founded in 1841 and based in London, UK, we have an international membership of over 50,000. We use the surplus from our global publishing and knowledge business to give thousands of chemical scientists the support and resources required to make vital advances in chemical knowledge. We develop, recognise and celebrate professional capabilities, and we bring people together to spark new ideas and new partnerships. We support teachers to inspire future generations of scientists, and we speak up to influence the people making decisions that affect us all. We are a catalyst for the chemistry that enriches our world.

Council for Industry and Scientific Research (CSIR)

CSIR, established in 1942, is an autonomous society known for its cutting-edge R&D knowledgebase in diverse Science & Technology areas. CSIR is a contemporary Research, Development & Engineering organization having Pan-India presence with a dynamic network of 37 national laboratories. CSIR's R&D expertise and experience is embodied in its 7000 scientific and technical personnel. CSIR today is amongst the foremost and is one of the largest publicly funded scientific and industrial organizations in the world.

Published in:

Pib

Air India, Airasia India And Vistara Ink Mou With CSIR-IIP

CSIR-IIP

25th September, 2022

The airline companies of the Tata group, consisting of Air India, AirAsia India, and Vistara, have signed a Memorandum of Understanding (MoU) with the Council of Scientific and Industrial Research - Indian Institute of Petroleum. The signing will see the parties collaborate and work on the research, development, and deployment of Sustainable Aviation Fuels (SAF).

The signing of the MoU comes after the Indian Ministry of Civil Aviation and the Ministry of Petroleum and Natural Gas were working on incorporating a SAF roadmap to progress the sustainable concept among Indian airlines. It also came after Civil Aviation Minister Jyotiraditya Scindia stressed the need for carbon neutrality.

India's current requirement for Aviation Turbine Fuel (ATF) is approximately 25 million tons daily. Still, the existing supply line and stock of imported crude and refined products with oil companies and refineries are becoming very limited. With the apparent consideration for economic and environmental views, the Indian aviation industry slowly realized the need to lead in the realm of SAF for future growth and sustainability of its operations. This is why the primary focus of this partnership would be the exploration of Single Reactor HEFA Technology for Drop-in liquid Sustainable Aviation and Automotive Fuel (DILSAAF), as the 'drop-in' fuel can be added to aircraft tanks with no modifications required. The MoU also highlights the parties' intent to work together in various other areas related to progressing sustainability within the Indian aviation industry.

Published in:

Menafn

Hyderabad: CSIR celebrates 81st Foundation Day at IICT

CSIR-IICT

25th September, 2022

Hyderabad: Even after three years, coronavirus continues to grab headlines and remains active in multiple countries. However, did you know that coronavirus was first reported by a women scientist Dorothy Hamre, a virologist in University of Chicago in 1966? Dr Hamre published her first report on coronavirus as early as 1966 and was also the first person to isolate a strain of coronavirus, which was designated as 229E.

These and many more interesting facts about the coronavirus were part of a special talk titled 'Chemistry and Biology in the Age of Coronavirus' delivered Prof P Balaram, Chair Professor, National Center for Biological Sciences, Bengaluru (IISc) at the 81st Foundation Day of CSIR, held at IICT. Prof. Balaram, who is former Director of IISc, in his talk, made some important reflections on evolutionary history of the coronavirus.

IICT Director, Dr D Srinivasa Reddy, and other senior scientists also gave away special awards to meritorious children of staff and felicitated staff who completed 25 years of council service, and retired on superannuation during last two years.

Published in:

Telangana Today

CSIR-IHBT

25th September, 2022

पपरोला के छात्रों ने सीखा सिक्कों से बैटरियां बनाना

बढ़ाया ज्ञान : जवाहर नवोदय विद्यालय पपरोला के विद्यार्थी शुक्रवार को सीआइएसआर पालमपुर में बैटरी और एलईडी बल्ब बनाना सीखते हुए ● जागरण

संवाद सहयोगी, पालमपुर : जवाहर नवोदय विद्यालय पपरोला के विद्यार्थियों ने शुक्रवार को वैज्ञानिक एवं औद्योगिक अनुसंधान परिषद (सीएसआइआर) में सिक्कों से बैटरियां बनाना और एलईडी बल्ब जलाना सीखा। सीएसआइआर और रायल सोसाइटी आफ केमिस्ट्री (आरएससी) लंदन ने सीएसआइआर-आइएचबीटी पालमपुर में वर्चुअल ग्लोबल बैटरी एक्सपेरिमेंट कार्यक्रम का आयोजन किया। इस अवसर पर देश भर के लगभग 2000 विद्यार्थियों ने 30 से अधिक सीएसआइआर प्रयोगशालाओं में आयोजित आरएससी के वैश्विक सिक्का प्रयोग में भाग लिया। इसके लिए डा. एन कलैसेल्वी, महानिदेशक सीएसआइआर और डा. पाल लुईस मुख्य परिचालन अधिकारी आरएससी ने समझौता ज्ञापन पर हस्ताक्षर (एमओयू) किए हैं।

इसके अलावा सीएसआइआर-आइएचबीटी के निदेशक डा. संजय कुमार ने छात्रों को अनुसंधान एवं विकास गतिविधियों के बारे में जानकारी दी। इस मौके पर डा. गिरीश नड्डा, डा. अमित चावला और डा. विवेक डोगर, डा. उपेंद्र शर्मा, डा. अमिताभ आचार्य, ईश्वर दास और संस्थान के स्वयंसेवक भी उपस्थित रहे।

Published in:
Dainik Jagran

CSIR-IHBT

25th September, 2022

सीएसआईआर-आईएचबीटी ने पंजाब के स्कूलों में चलाया पौधारोपण अभियान

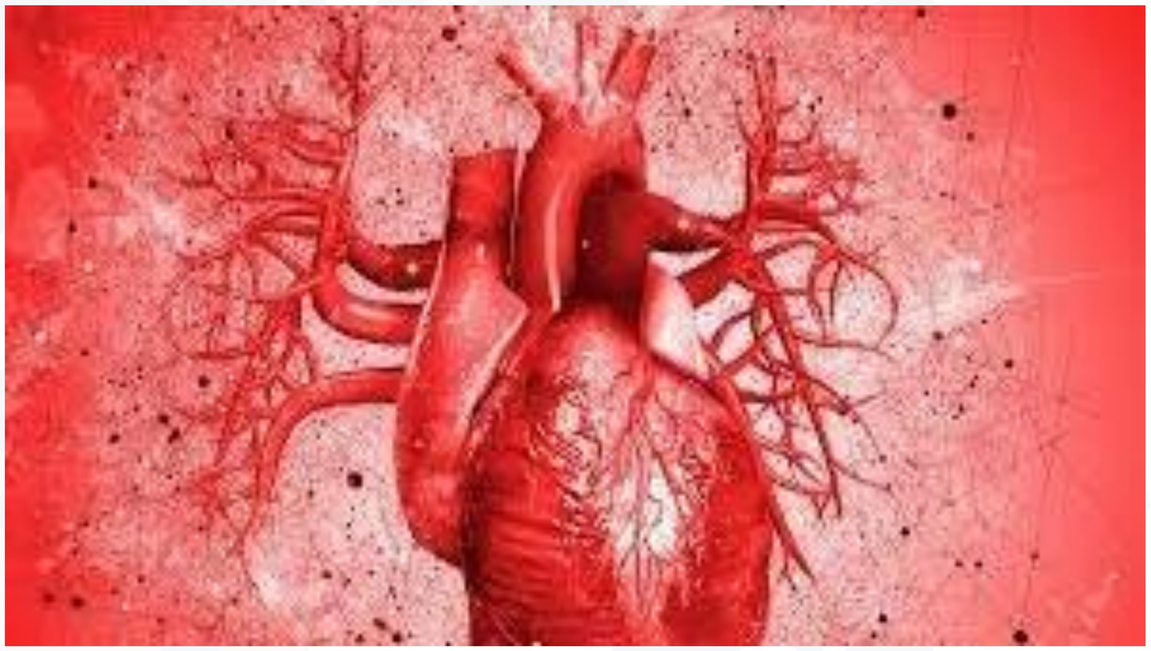
सवेरा न्यूज / जसवंत कठियाल (पालमपुर) : सीएसआईआर. आईएचबीटी पालमपुर संस्थान द्वारा फ्लॉरिकल्चर मिशन के उपशीर्ष अर्बन फ्लॉरिकल्चर एवं जिज्ञासा कार्यक्रम के अंतर्गत पंजाब राज्य के जिला मोगा तथा फिरोजपुर के 9 सरकारी विद्यालयों में उद्यान विकिसत करवाने हेतु विभिन्न प्रकार के लगभग 850 पौधे लगवाए गए जिनमें राजकीय वरिष्ठ माध्यमिक विद्यालय, पीर मोहम्मद व फतेहगढ़ पंजतूर, राजकीय प्राथमिक विद्यालय लले, तलवंडी व मंसूरदेवा; राजकीय उच्च विद्यालय, रावल कंगना, मंसूर देवा राउवाल व कोट इसे खान तथा राजकीय माध्यमिक विद्यालय, बुह गुजरां शामिल हैं। कार्यक्रम के तहत एरिका पाम, रॉयल पाम, रेफीस पाम, फ़ाइकस, गुलाब, मधुमालती, थूजा, नेरियम, बोगनवेलिया ड्रेसीना, हेमेलिया, बॉक्सवुड इत्यादि के बागवानी पौधे विद्यालयों में विद्यार्थियों व शिक्षकों के सहयोग से लगवाए गए। मिशन स्टाफ द्वारा विद्यार्थियों को पौधों व उद्यान के महत्व एवं स्थल सौंदर्यीकरण से भी अवगत करवाया गया। जिसे वह अपने जीवन में एक स्वरोजगार का माध्यम बना सकते हैं। सभी विद्यालयों के लगभग 800 विद्यार्थियों, शिक्षकों और अन्य स्टाफ ने उद्यान विकिसत करने में भागीदारी दी। सभी विद्यालयों के प्रधानाचार्यों एवं शिक्षकों ने इस उत्कृष्ट कार्य के लिए संस्थान के निदेशक एवं मिशन स्टाफ का आभार व्यक्त ज़ किया। इस मिशन के अंतर्गत पाँच विभिन्न राज्यों में 200 विद्यालयों एवं महाविद्यालयों में उद्यान विकिसत किए जा रहे हैं जिनमें से लगभग 100 उद्यान विद्यालयों, महाविद्यालयों एवं सरकारी कार्यालयों में विकसित करवाए जा चुके हैं।

Published in:
Dainik Savera

NCL discovers effective drug for heart disease in crystalline form IV News

CSIR-NCL

24th September, 2022



Pune, Leading News Service: Council of Scientific and Industrial Research-National Chemical Laboratory (CSIR-NCL) has claimed that NCL has discovered a new hydrate of Entresto drug that is effective in chronic heart failure. In Pune in 2018 on new crystalline hydrate forms and different structures of Entresto, the then Director Prof. Ashwini Kumar Nangia and Chief Scientist of Physics and Chemistry Department Dr. Rajesh G. Research was initiated under the leadership of Gonnad. His research on crystal engineering and drug polymorphisms has recently been published in the Royal Society of Chemistry General.

Scientists have successfully discovered six different spatial types of introstrophe. It contains varying amounts of water and contains the active pharmaceutical ingredients and valsaltan and succubitrel in their anionic state together with sodium ions. Varieties of interest contain 2.0 to 3.2 percent water and exhibit stability at varying temperatures and humidity. which is important for their long-term storage (shelf life) and drug bioavailability. This is the first study of its kind to be published.

Gautam R. Desiraju, Emeritus Professor at IISC Bangalore and former President of the Union of Crystallography, opined on this research that India is also leading internationally in crystallographic engineering research. Entresto is the world's best-selling drug developed for the treatment of chronic heart disease and related problems in critically ill patients. It was approved by the US Food and Drug Administration in 2015. This drug is different from other drugs containing secubitril and valsartan polymorph supramolecular complex.

Most drugs on the market are single molecules. Some have fixed dosages or combinations of more than one drug. However, Entresto is the first drug to be designed using crystal engineering principles for drug production and patented in the 2000s. Most drugs have a molecular weight of less than 500 but Entresto has a molecular weight of 5748.

Published in:
Irshivideos

Dr. Sadananda to inaugurate two-day 'Open Day' at CFTRI on Sept. 26

CSIR-CFTRI 24th September, 2022

Dr. K.S. Sadananda, Professor of Cardiology and Medical Superintendent, Sri Jayadeva Institute of Cardiovascular Sciences and Research, Mysuru, will inaugurate the two-day Open Day celebrations to be held at CSIR-Central Food Technological Research Institute (CFTRI) in Mysuru at 10 a.m. on September 26.

The premier research institute will keep its doors open to the public on September 26 and 27. The entry is from the North Gate opposite Akashvani on KRS Road. Public can visit the Institute from 11 a.m. onwards on September 26 and from 10 a.m. onwards on September 27, said a statement from CFTRI. "The last entry would be at 5 p.m. on both days", the statement added.

"We welcome every citizen in and around Mysuru and students to visit CSIR-CFTRI on these days. We will to disseminate knowledge in the area of food science and technology so as to enthuse the student fraternity," CFTRI Director Dr. Sridevi Annapurna Singh and Chief Scientist and Chairman of CFTRI Open Day H.S. Satish said in a statement.

This year's Open Day at CFTRI is focussed on Food Technology-Industry Connect. Public can also see Mobile Food Processing Unit and some of the machines designed and developed at the Institute. "Visitors can also view Food expo consisting of stalls of CFTRI licensees who have taken technologies. On display will be research activities of R and D Departments of CSIR-CFTRI, especially related to central theme and entrepreneurship," the statement added.

Published in:
The Hindu

CSIR-IIP

24th September, 2022

आईआईपी का बायोजेट फ्यूल पर करार

■ शैलेन्द्र सेमवाल

देहरादून। देश में कार्बन उत्सर्जन कम करने को लेकर हो रहे प्रयासों के तहत सीएसआईआर-आईआईपी(भारतीय पेट्रोलियम संस्थान) ने निजी विमानन कंपनियों टाटा कंपनीज, एयर विस्तारा, एयर इंडिया और एयर एशिया इंडिया के साथ महत्वपूर्ण करार किया है। इस करार के तहत निजी विमानन कंपनियां सस्टेनेबल एविएशन फ्यूल(एसएएफ) के उपयोग व इसे बढ़ावा देने के अभियान से जुड़ेंगी।

आईआईपी निदेशक डा.अंजन रे की मौजूदगी में गुरुवार को आईआईपी में टाटा एविएशन कंपनीज के सिद्धार्थ शर्मा, एयर विस्तारा से नियंत मारु, एयर इंडिया से कैम्पबेल विलसन, एयर एशिया इंडिया के सुनील भास्करन के साथ ये एमओयू साइन किया गया। आईआईपी निदेशक डा.अंजन रे ने बताया कि भारत ने कार्बन उत्सर्जन कम करने के अंतरराष्ट्रीय प्रयासों में शामिल होते हुए सस्टेनेबल एविएशन फ्यूल से देश में कार्बन उत्सर्जन को 65 फीसदी तक कम करने का लक्ष्य तय किया है। इससे पहले यह करार इंडिगो, स्पाइस जेट से भी किया जा चुका है। इस करार से देश में बायोजेट फ्यूल के व्यावसायिक उत्पादन का माहौल तैयार होगा, बायोजेट फ्यूल की डिमांड बढ़ेगी और पूर्ति के लिए देश में प्लांट लगेंगे। भारतीय सेना पहले ही बायोजेट फ्यूल का इस्तेमाल कर रही है। बायोफ्यूल के व्यावसायिक उत्पादन के लिए मंगलौर रिफायनरी और पेट्रोकैमिकल से बात चल रही है। यह ओएनजीसी की सहयोगी कंपनियां हैं। इन प्लांट में रोजाना दस से 15 हजार लीटर बायोफ्यूल का उत्पादन किया जाएगा।

आईआईपी निदेशक डा.अंजन रे की मौजूदगी में आईआईपी में एमओयू हुआ। ● हिन्दुस्तान

> अभी बायोजेट फ्यूल सामान्य तेल से महंगा है। इसकी वजह कम उत्पादन है। लेकिन पर्यावरण को पहुंच रहे फायदे के आगे ये महंगा सौदा नहीं है। बायोफ्यूल की उपलब्धता प्लांट लगने पर निर्भर है। इस करार ने उस बाधा को दूर कर दिया है। उत्पादन बढ़ने से लागत में भी कमी आएगी और बायोजेट फ्यूल लगाने के लिए कंपनियों को प्रोत्साहन मिलेगा।-डा.अंजन रे, निदेशक आईआईपी।

Published in:
Hindustan

CSIR-IICT to be part of nationwide wastewater surveillance project to assess disease prevalence

CSIR-IICT, CCMB 22nd September, 2022

Looking into the sewage may be ghoulish idea for many, but scientists of Council of Scientific & Industrial Research (CSIR)-Indian Institute of Chemical Technology (IICT) have been studying wastewater samples from the city drains in select places ever since the COVID pandemic broke out and over the last couple of years have made wastewater surveillance into a reliable scientific tool to assess disease prevalence in the population.

Chief scientist S. Venkata Mohan and his team has now become part of the Department of Biotechnology (DBT)-funded nationwide project in the framework of 'INSACOG - Indian SARS-CoV-2 Genomics Consortium' which is also looking into new variations from wastewater. "This is going to be a year-long project in which 11 national labs/institutes are participating. We have been tasked with collecting wastewater samples from Hyderabad," explained the environment bioengineer, who was working on wastewater treatment, before he waded into disease surveillance during COVID.

He explains how it happened. "We read a report in the 'Lancet' publication about detection of genetic material of COVID in the sewage and this set our research team to scour for material to know more about this so that it can be tried in our country too. Sufficient data or methodology was not available then to take up the project to a scale where the disease prevalence could be established among the people. We are also used to working with bacteria and the virus was a new thing," he said.

Senior scientist Rakesh Mishra, then heading Centre for Cellular and Molecular Biology (CCMB), suggested collaboration as they had a full-fledged virus lab, when the IICT in association with the CSIR-Centre for Cellular & Molecular Biology (CCMB) took up wastewater surveillance project. Initially, samples were taken in hospitals with much difficulty as the pandemic was raging and then moved to the Sewage Treatment Plants (STP) with the

permission of the state government. A sample a week was collected for four weeks from seven major STPs and a gated residential community at the final discharge points where the virus was detected. "The virus will survive for 21 days after being ejected through stools. We have developed a methodology where we can extrapolate the extent of population affected and specific areas. We had then found that around 6% of the city's population was shedding the virus in their faeces, and this almost matched the official figures in our study from July 2020-August 2021. We could detect a rise in cases during the Delta wave though we did not know the variant then," said the scientist, in an exclusive interaction.

The team did a similar project for the Andhra Pradesh Government at the STPs of Visakhapatnam, Vijayawada, Kurnool, Rajahmundry, Narasaraopeta, Pulivendula, Tadipatri and Puttaparthi. Initially, the team took precautions like wearing PPE kits for collecting samples also. "The virus is mostly not 'live' in drains and cannot survive post treatment so we take the samples from the inlet points of the STPs. Best time is 5 a.m. to 9 a.m. We can come out with results within 12 hours," he said.

Their study was quoted by the World Health Organisation (WHO) and was published in reputed journals with the team acknowledged for being among the few groups to have established a clear-cut methodology for wastewater surveillance.

"We are in a position to forecast a possible spike in cases a few days in advance which can serve as an early warning system. If we get early signals from the waste water samples, we can effectively manage any infection by zoning based on the infection rates so that the entire community need not be put under duress. In Europe, some governments are following this diligently and once something amiss is noticed in the wastewater, the sample size is increased and reported to the higher authorities. Perhaps, it is time we had a policy like that here too since it is inexpensive and non-intrusive," added Prof. Venkata Mohan.

Published in:
The Hindu

Dharmendra Pradhan launches SCALE app for skill development in leather sector

CSIR-CLRI

21st September, 2022

Union Minister for education and skill development Dharmendra Pradhan has launched the Skill Certification Assessment for Leather Employees (SCALE) app which aims to provide a one-stop solution for the skilling, learning, assessment, and employment needs of the leather industry. The app was launched at the Central Leather Research Institute (CSIR), Chennai.

According to the official statement, the leather skill sector council developed the android app SCALE to change the way skill development programmes are designed and delivered to the trainees in leather industry. The app allows people from all age groups interested in leather craft to access online live streamed classes from the state-of-the-art studio at its office, the statement added.

While speaking on the occasion, Pradhan said that the leather sector plays a major role in generating large-scale employment in the country with over 44 lakh people currently working. He lauded the role of CSIR-CLRI for playing an important role in the development of this sector with blend of academics and skill development.

Further, Pradhan spoke about the changes in the sector due to advent of digital technologies and environment friendly techniques. He called for a renewed impetus on skilling, re-skilling and up-skilling and drive capacity building. As per the statement Pradhan said that NSDC and CSIR-CLRI will work together to address the skilling needs of this sector and suggested a national level capacity building programme be held at CSIR-CLRI for augmenting the

capacities of professionals who work in this sector. He further said that the Ministry of Skill Development and Entrepreneurship, NSDC, CLRI and Leather Sector Skill Council will collaborate to set up Common Facility and Skilling Centre across India, including Chennai.

In addition, Pradhan called upon young professionals in this sector to leverage technology, innovation, entrepreneurship to become job-creators. They must handhold craftsmen to connect them to opportunities available in the digital space including e-commerce, he said.

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CSIR-CFTRI

21st September, 2022

CSIR-CFTRI open days on Sept. 26, 27

The Hindu Bureau
MYSURU

CSIR-Central Food Technological Research Institute (CFTRI), Mysuru, has decided to hold open days on September 26 and 27. These days mark the CSIR Foundation Day which is observed every year on September 26. The public can get a glimpse of the research and technology development being undertaken in food science and technology and food processing at the Institute.

Special displays showing the research and development work of CFTRI and some products and machinery developed by the Institute will be showcased, according to the CFTRI. The theme pavilion will showcase the information about CFTRI innovative technologies with relevance to entrepreneurship. "It's an opportunity to explore science as a career option especially for students and discuss with our staff about scientific and research activities," a release said here. The institute is open to the public on September 26 from 11 a.m. to 5 p.m. and from 10 a.m. to 5 p.m. on September 27.

For further details, contact the Information and Publicity (Tel:0821-2515910; E-mail: iandp@cftri.res.in)

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