

CSIR IN MEDIA



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11 TO 15 FEBRUARY 2022



Entrepreneurs to get skills on '3Ps' of food industry

CSIR-CFTRI

15th February, 2022

CSIR-Central Food Technological Research Institute (CFTRI), Mysuru is organising a two-day online workshop on “3Ps of Food Industry: Processing, Preservation and Packaging” on March 3 and 4 under the CSIR Integrated Skill Initiative for entrepreneurs and start-ups working in food processing.

The workshop will primarily focus on processing, preservation and packaging in the food industry. An overview of processing of various food products like bakery products, grains, spices, fruits and vegetables, specialty foods will be covered in the workshop.

Food preservation is a key factor for protecting food from microbial growth and to ensure its safety. The application of preservatives — both natural and artificial —, knowledge about the food safety standards, and regulatory requirements are the major concerns of MSMEs and start-ups for getting a robust foothold in the market, according to CSIR-CFTRI.

As it is known, packaging provides protection and tampering resistance for safe handling and distribution of the products. Advanced technologies are applied in food packaging using diverse materials like paper, plastic, aluminium, glass, biodegradable materials etc. It is expected that the workshop would be able to address and elaborate many pressing issues of the industry, a release said here.

For more details, people can visit <https://cftri.res.in/sdp> or email at pmc@cftri.res.in

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2 Pune scientists bag national awards in Chemistry, Astrophysics

CSIR-NCL, CSIO

12th February, 2022

TWO women scientists from Pune have been selected for the Science and Engineering Research Board (SERB) awards for this year given annually by the Department of Science and Technology. Ruta Kale from TIFR – National Centre for Radio Astrophysics (NCRA) and Asha SK from CSIR – National Chemical Laboratory (NCL) were the awardees under the Physical and Chemical



Sciences categories, respectively. The DST announced the winners on the occasion of International Day for Women and Girls in Science on Friday.

In 2015, the United Nations General Assembly announced this day for the achievement of full and equal access to and participation in science for women and girls across the globe, thus aimed at achieving gender equality and women empowerment.

Kale, a Reader at NCRA, was among the nine women scientists who bagged the SERB Women Excellence award 2022. She studies the evolution of radio galaxies and radio astronomy techniques. With a PhD on 'A multi wave length study of radio halos and relics in clusters of galaxies' from the Raman Research Institute, she has served as a DST – INSPIRE faculty at NCRA between 2015 – 2017.

Asha heads the Polymer Science and Engineering Division at NCL. Her research group works on developing higher ordered polymer architectures that have applications in opto-electronic devices like lasers, photo diodes, solar cells and LEDs.

The Excellence awards are presented to scientists below 40 years of age whose work has been recognised by either of the Indian science academies. DST supports with a sum of Rs 15 lakh for three years for a project.

Other SERB Excellence awardees this year under Life Sciences were Ashima Bhaskar from International Centre for Genetic Engineering and Biotechnology (ICGEB), Yogita Adlakha of Translational Health Science and Technology and Nitika Sandhu from Punjab Agricultural University. Neha Khatri from CSIR – Central Scientific Instruments Organisation and Mudrika -NXEKhandelwal from IIT-Hyderabad were selected from Engineering stream.

Chandini U (Physical Sciences) from Indian Institute of Science, Binita Pathak (Earth and Atmospheric Sciences) of Dibrugarh University and Debashree Chakraborty (Chemical Sciences) of NIT-Suratkal were the other winners.

SERB Fellows are given a research grant of Rs 10 lakh for three years in addition to Rs 15,000 fellowship every month during this period.

The 2022 Fellows are Ishu Sarogi from IISER-Bhopal and Debashree Ghosh of Indian Association for the Cultivation of Science under Chemical Sciences. Premlata Jena, Anubha Gupta and Lakshminarasamma N for Engineering Sciences representing IIT Roorkee, New Delhi and Madras, respectively. Under Life Sciences, the awardees include Neeti Mishra from ICGEB, and Ellora Sen from National Brain Research Centre.

8k samples in Feb: Maha sets genome study target

CSIR-NEERI

12th February, 2022

Nagpur The state public health department has set a target of studying 8,000 samples for genome surveillance in February under Integrated Disease Surveillance Programme (IDSP) following instructions from the National Centre for Disease Control (NCDC) and Union health ministry.

The new whole genome sequencing (WGS) target is almost double the number of samples studied thus far by Nagpur and Pune labs, officials said. As on date, genome sequencing is done only in these two cities in the state. No individual target has been given to any lab, though.

State joint director of health services has, in a letter dated February 10, written to deputy directors of health services of Nagpur and Akola, all medical colleges and municipal corporations to start sending Covid positive samples from February 1 onwards to CSIR-NEERI for genome sequencing.

The joint director has also asked all the concerned authorities and stakeholders to stop sending samples to National Institute of Virology, Pune. Till now, medical colleges had been sending samples to the NIV every fortnight.

Sentinel labs — Virus Research and Diagnostic Laboratory (VRDL) at Indira Gandhi Government Medical College and Hospital (IGGMCH) in Nagpur's case — from region too have now been asked to send fortnightly 15 surveillance samples to Neeri only.

Every district has been asked to schedule weekly referral of their samples with nodal officer from Neeri Dr Krishna Khairnar. The NEERI'S environmental virology cell is the first in Vidarbha to set up genome sequencer. The cell led by Dr Khairnar had performed whole genome sequencing of over 500 samples from Nagpur city in January.

“Following capacity-building, the NEERI lab has been recognized by INSACOG (Indian SARS-CoV2 Genomics Consortium) Genome Sequencing Laboratory/Regional Genome Sequencing Laboratory and Sentinel Centre for SarsCov2 north-eastern (Vidarbha) region of Maharashtra. Hence, it was decided to prefer NEERI lab over NIV Pune for processing samples from Vidarbha. The new target has been set in accordance with the capacity of our labs. However, samples need to meet certain standards for genome study. This was one of the reasons why the numbers went down before the Covid’s third wave,” said an ICMR official.

Cycle threshold (CT) value less than 25 is one of the key parameters for preferring a sample for genome study. Lesser the value indicates greater presence of the virus.

Priority would be given to samples of hospitalised patients, especially those on oxygen support and ventilators. Cases with history of re-infection and exceptional clinical presentation shall also be referred. The joint director has instructed to treat samples of breakthrough infections on priority.

CSIR-CSMCRI

12th February, 2022

Celebration of Jigyasa outreach program under the umbrella of Azadi ka Amrit Mohatsav

ભાવનગર સીએસએમઆરઆઈ દ્વારા સૌર ઊર્જા ઉજ્જવળ ભવિષ્યની અક્ષય ઊર્જા નામક કાર્યક્રમ યોજાયો

કાર્યક્રમમાં જુદી-જુદી શાળાનાં વિદ્યાર્થીઓ મોટી સંખ્યામાં જોડાયા હતા

આજકાલ પ્રતિનિધિ-ભાવનગર વૈજ્ઞાનિક અને ઔદ્યોગિક અનુસંધાન પરિષદ- કેન્દ્રીય નમક અને સમુદ્રી રસાયણ અનુસંધાન સંસ્થાન, ભાવનગર દ્વારા સીએસએમઆરઆઈ- જિજ્ઞાસા ના અંતર્ગત આઝાદીના અમૃત મહોત્સવની ઉજવણી માટે પરિસંવાદ(વેબિનાર)નું આયોજન “ઉત્પ્રેરક અને સમાજ પર એના પરિવર્તનકારી પ્રભાવ” અને “સૌર ઊર્જા: ઉદ્ભવણ ભવિષ્ય માટે એક અક્ષય ઊર્જા” નું આયોજન

સીએસએમઆરઆઈ - કેન્દ્રીય નમક અને સમુદ્રી રસાયણ અનુસંધાન સંસ્થાન ભાવનગર એ ૧૧ ફેબ્રુઆરી ૨૦૨૨ ના રોજ એક ઓનલાઈન પરિસંવાદનું આયોજન “ઉત્પ્રેરક અને સમાજ પર એના પરિવર્તનકારી પ્રભાવ” અને “સૌર



ઊર્જા: ઉદ્ભવણ ભવિષ્ય માટે એક અક્ષય ઊર્જા” કરેલ હતું. આ પરિસંવાદનું આયોજન ભારત સરકાર દ્વારા ૭૫ માં સ્વતંત્રતા વર્ષ દરમિયાન મનાઈ રહેલ

આઝાદીના અમૃત મહોત્સવ, સીએસએમઆરઆઈ- જિજ્ઞાસાના અંતર્ગત કરવામાં આવ્યું હતું. આ કાર્યક્રમના પ્રારંભમાં ડૉ. ડુંગર રામ ચૌધરી, પ્રધાન વૈજ્ઞાનિક અને સીએસએમઆરઆઈ- જિજ્ઞાસા યોજના અન્વેષક એ બધી કેન્દ્રીય વિદ્યાલય, જવાહર નવોદય વિદ્યાલયો, અઝક વિદ્યાલયો ના આચાર્યઓ, શિક્ષકો અને વિદ્યાર્થીઓનું સ્વાગત કર્યું, અને તેઓએ ઈજેઈઈ - જિજ્ઞાસા કરિયાક્રમ ના ઉદ્દેશ્યો પર પ્રકાશ પાડ્યો અને શિક્ષકો અને વિદ્યાર્થીઓને લાભ વિષે માહિતીગાર કર્યા. કાર્યક્રમના મુખ્ય વક્તા વૈજ્ઞાનિક અને એઓદ્યોગિક અનુસંધાન પરિષદ- કેન્દ્રીય નામક અને સમુદ્રી રસાયણ અનુસંધાન સંસ્થાનવૈજ્ઞાનિક ડૉ. સરવણન હતા.

વિદ્યાર્થીઓને રોજિંદા જીવનમાં અને ઉદ્યોગોમાં ઉત્પ્રેરકના ઉપયોગો વિશે વિગતવાર માહિતી આપી. તેમણે કહ્યું કે ખેતીમાં વપરાતા રાસાયણિક ખાતરોનું ૮૦-૯૦% ઉત્પાદન ઉત્પ્રેરક પર આધારિત છે. ઉદાહરણ તરીકે, નાઈટ્રોજન આધારિત રાસાયણિક ખાતરો હવામાં હાઈ નાઈટ્રોજનની હેબર-બોશ પ્રક્રિયામાં ઉત્પ્રેરક દ્વારા ઉત્પન્ન થાય છે. કાર્બન ડાયોક્સાઈડ ગેસને ઉત્પ્રેરકની મદદથી ઉપયોગી ઉત્પાદનો જેમ કે કાર્બોનેટ, પોલી-કાર્બોનેટ અને ક્રોઈસલિક એસિડમાં રૂપાંતરિત કરી શકાય છે. તેમણે દસ રાસાયણિક નવીનતાઓ પર પ્રકાશ પાડ્યો જેણે વિશ્વને બદલી નાખ્યું અને નોબેલ પુરસ્કારમાં ઉત્પ્રેરકના યોગદાન પર પ્રકાશ પાડ્યો.

Jamshedpur: NML-NIAMT launch job oriented three-month CWDS training for women

CSIR-NML

11th February, 2022

Jamshedpur, Feb 11: CSIR-National Metallurgical Laboratory (NML), Jamshedpur in association with National Institute of Advanced Manufacturing Technology (NIAMT), Ranchi, on Friday commenced a three-month job oriented training programme between February 11 and May 9, for women on, 'Carpentry & Woodcraft with 3D Design Software (CWDS).' The training programme is a part



of the project, 'Women Technology Park (WTP)' for capacity building and entrepreneurship development sponsored by the Department of Science & Technology (DST), Government of India. The course curriculum offered in this training program is aligned with NSDC Qualification Pack FFS/Q0103.

The training that commenced on Friday, February 11 has been designed as a three-month full day programme being conducted at CSIR-NML. A professional carpenter will provide training to the participants.

At the inaugural programme held today, the Director, CSIR-NML, Dr Indranil Chatteraj while delivering the welcome address encouraged the women participants to participate actively in the training programme as it was a door to the treasure chest of future self employment avenues.

Director, NIAMT, Prof Partha Chattopadhyay, gave a brief on the thoughts behind arranging this special training program for women. Chief Scientist & Head, KRIT Division of CSIR-

NML, Dr Mita Tarafder made a detailed presentation on the training program as part of the DST-WTP project. She mentioned the difficulties faced while organizing a training program that was usually not considered as a women-centric vehicle. Dr Tarafder elaborated on the on-going and upcoming events that had been planned and would be executed by CSIR-NML as a part of the WTP project.

Senior Scientist and Head of CSIR-NML Engineering Division, Uday Bhaskar Rao talked on new workshop facilities being created for such training programmes with a wide array of tools required for such endeavours and informed the participants on the availability of internal resources.

Professional carpenter and trainer for this workshop, Rajendra Kumar encouraged women participants to learn the basics well and urged them to focus on the training that had been specially designed for them to provide a livelihood option once they developed expertise in this area.



CSIR-CFTRI

11th February, 2022

CSIR-CFTRI Director highlights importance of pulses for diet, nutrition

‘They are rich in proteins and useful for those conscious about weight’

**SPECIAL CORRESPONDENT
MYSURU**

CSIR-CFTRI Director Sridevi Annapurna Singh on Thursday said the world lately realised the importance of pulses even as India had understood their value long ago. Pulses are an integral part of the Indian diet plan as they are nutrition-rich and climate-friendly. They are rich in proteins and carbohydrates, she explained.

Speaking on the occasion of World Pulses Day organised at the CSIR-CFTRI here, she said pulses are known to play an important role in improving soil fertility. It's very useful for those conscious about their weight as it offers a cost-effective diet plan.

On the occasion, A. Srinivas, head, Grain Science and Technology Department, CSIR-CFTRI gave a presentation on the “Development of pulse processing machinery and value-added products at CSIR-CFTRI.” The senior scientist said technologies for 48 different varieties of pulses have been developed at the CFTRI over the years.

Dr. Srinivas gave an overview about the institute's technologies right from hand-pressed dal mill to versatile dal mill, which are being successfully operated



CSIR-CFTRI Director Sridevi Annapurna Singh and other scientists in Mysuru on Thursday. ■ M.A. SRIRAM

Besides improving the economy of the people in rural areas, the technologies have come as a source of livelihood to Adivasis as well in some areas. The self-help groups and farmers have successfully made use of our technologies with all of them getting trained on their operations and use as and when the technologies were transferred from lab to land, he said.

“So passionate about the dal mills that I have seen village people used to hug the equipment while procuring them from the institute for operations in their places. In the 90s, a tribal couple used to tell us that they were earning about Rs 400-500 a day using the dal mills. The technologies had economic benefits with the institute later developing machines for processing all kinds of pulses, including motorized dal mills and versatile dal mills.”

Dr. Srinivas also spoke about papad press for empowering women and SHG members in rural areas as it can make 400 papads an hour. Such technologies are available for free at the CFTRI and the prototypes are available for developing the pressing machines, he informed.

WORLD PULSES DAY

‘Plant-based meat startups in demand’

**SPECIAL CORRESPONDENT
MYSURU**

CSIR-CFTRI Director Sridevi Annapurna Singh on Thursday said a lot of startups are now focusing on plant-based alternatives for meat products with about 200% increase in research focused on meat analogues.

She said many plant

sources are being explored by scientists for bringing about alternatives to meat that are sustainable and healthy.

Besides looking at the Indian scheme of things, a lot of focus is on value addition and producing plant-based meats with also emphasis on export markets.

across the country. The technologies developed for processing pulses have been effectively transferred to

villages, financially empowering the people of the rural areas, especially the self-help groups (SHGs).

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