CSIR in Media

Platinum Jubilee 1942-2016

75 Years of

CSIR Touching Lives

News Bulletin

26th to 30th November 2019

Produced by Unit for Science Dissemination, CSIR, Anusandhan Bhawan, 2 Rafi Marg, New Delhi

CSIR-NML

30th November, 2019

RVS Academy students visit NML

Mail News Service

Jamshedpur, Nov. 29: The students of RVS Academy visited NML on 29th November.

The team comprised of 35 students and three teachers of science stream. The National Metallurgical Laboratory has the largest creep testing facility in India. Being one of the largest in Asia, it holds a strong presence in the magnetic materials.The inquisitive students got the privilege to interact with the renowned scientists. They also came to know about the process of extraction of metals from iron ore.

The Students participated in various activities and got the first hand knowledge of chemical world.

The students of 12thstd are about to step into a different phase of life and this visit helped them in better understanding of their subject matter .It would definitely help them in choosing and shaping up their career.

The children were thankful to the management for providing them a golden opportunity.

Published in:
The Avenue Mail

CSIR-NML

30th November, 2019

आरवीएस एकेडमी के बच्चों ने किया एनएमएल का दौरा

जमशेदपुर. डिमना रोड स्थित आरवीएस एकेडमी के बारहवीं के विज्ञान संकाय के लगभग 35 विद्यार्थियों ने राष्ट्रीय धातुकर्म प्रयोगशाला का भ्रमण किया. विद्यार्थियों को प्रयोगशाला में रासायनिक घटकों के विघटन व धातुओं से जुड़ी बातों को समझाने का प्रयास किया. प्रयोगशाला की कार्यविधि को समझते हुए उन्होंने रसायन विज्ञान के कई पहलुओं को जाना. विज्ञान विषय के विद्यार्थियों के लिए यह शैक्षिक भ्रमण बहुत उपयोगी सिद्ध हुआ. इसमें स्कूल के शिक्षक व शिक्षिकाएं भी शामिल थी. जिसमें सुमिता पालीत, अंजन मिश्रा और ओमप्रकाश महतो भी विद्यार्थियों के साथ इस शैक्षिक भ्रमण पर गये थे.

Published in:
Prabhat Khabar

KIA's new runway gets an indigenous visibility system

CSIR-NAL

30th November, 2019

Drishti Transmissometer installed for India Meteorological Department (IMD) at Kempegowda International Airport (KIA) in Bengaluru.

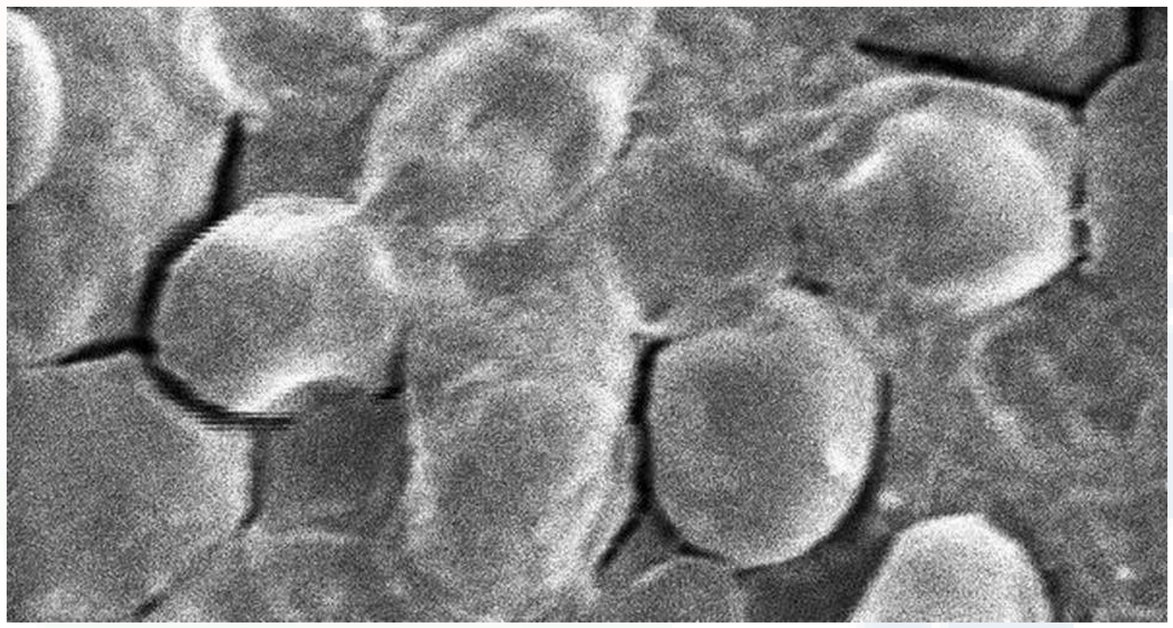
Four Drishti systems are being installed for the new runway at KIA. Two sophisticated Aviation Weather Monitoring system will be installed next week and made available on a single computer for Air Traffic Control room and pilots, according to sources. Drishti Transmissometer, the indigenous cost-effective visibility measuring system, has been developed at the workshop of National Aerospace Laboratories, Bengaluru. As the Drishti system is web-enabled, maintenance may be carried out from any location in the country. None of the Drishti systems, including the first one installed at Indira Gandhi International Airport, New Delhi, in 2011, has failed so far. The Drishti Transmissometer won the first Make in India National Award in 2015.The system helps pilots while flying out or approaching airports with an accurate runway visual range. It is available for one-third of the price of the imported system.Till 2011, the IMD imported instruments. It inked an agreement with CSIR-NAL to install the Drishti Transmissometers at civilian airports in the country. The system has also been installed at 54 airports managed by the Indian Air Force (IAF).

Published in:
Deccan Herald

CCMB team uses E. coli to study bacterial cell wall development

CSIR-CCMB

30th November, 2019



Cellular damage: A scanning electron microscopic image of E. coli shows their cell walls ruptured hence losing the rodlike shape and dying

The cell wall of the bacteria is made up mostly of one large molecule called peptidoglycan

Researchers from Hyderabad have identified an enzyme that plays a crucial role in the enlargement and growth of bacteria, by studying *E. coli*. The enzyme MepK helps in cutting a particular class of bonds that connect the peptidoglycan, which is a sac-like molecule that envelops the cell. This action allows more material to be added to the cell wall, making a larger compartment for the cell to reside in.

One of the most important features of a bacterium is its cell wall which protects it from external environmental conditions and also internal pressure and keeps it in shape. Harming the cell wall causes irreversible damage to the bacterium and eventually kills it.

Crucial factor

For example, *E. coli* are rod shaped bacteria often experimented with in the lab. The bacteria die when the integrity of the cell wall is destroyed. Its crucial role in maintaining the wellbeing of the bacterium makes the cell wall a target of study, especially by scientists interested in developing new drug strategies to combat the bacteria. In this context, understanding how the bacterial cell wall develops during growth and division of cells is an important question being addressed in Manjula Reddy's lab at the Centre for Cellular and Molecular Biology (CSIR-CCMB) in Hyderabad for a decade now.

In an earlier work, done in 2012, Dr Reddy's group showed that opening the cell wall by hydrolysing enzymes is crucial for the new material to be incorporated into it, leading to the cell's expansion and elongation. The cell wall is made up mostly of a single net-like molecule (peptidoglycan). This consists of many sugar polymers interconnected by short peptides. It encloses the bacterial cytoplasmic membrane very much like a jute bag. The peptides connecting the baglike structure are cross-linked in several ways. Of significance to this work are the links between particular amino acid residues located on adjacent peptide chains. This is a rare component present only in bacterial cell walls and is known as mDAP for short..

Vital enzyme

In a paper published recently in the *Proceedings of National Academy of Sciences (PNAS)*, the group identified an enzyme (MepK) which helps in breaking down the bond between two mDAP residues. This leads to cutting the molecular mesh and thus aiding the growth (or enlargement) of the cell. "By cleaving these cross-links, MepK along with other known enzymes] contributes to growth and enlargement of sac-like peptidoglycan... This emphasises the fundamental role of cross-link cleavage in bacterial cell wall synthesis," says Pavan Kumar Chodisetti, from CSIR-CCMB and the first author of the paper. "The class of enzymes reported in this paper was not known earlier, and identifying this enzyme [MepK] gave us lot of excitement," says Dr. Reddy. "[The study] has higher significance in organisms like *Clostridia* and *M. tuberculosis* because cell walls of these bacteria have very high levels of mDAP-mDAP type of cross-links. Therefore, MepK-like enzymes will be very important for the growth of these bacteria." These cross-links constitute approximately 10% of total cross-links in Gram-negative bacteria like *E. coli* and *Pseudomonas*. However, they are predominant in many Gram-positive bacteria such as *Mycobacteria* and *Clostridia* (occur up to 80% of total cross-links) The next step according to Dr. Reddy is "identifying small-molecule inhibitors for this class of enzymes and also to understand the molecular mechanisms by which the cell wall growth is initiated".

Published in:
The Hindu

Curtains come down on Training Program Recycling of Metallurgical Wastes

CSIR-NML 29th November, 2019

The 3-day professional training program on Recycling of Metallurgical Wastes concluded at CSIR-NML, Jamshedpur on Friday. The programme in its three days span covered lectures and demonstrations on the aspects of recycling smelter wastes, iron and steel related wastes, other non-ferrous wastes. Many participants were excited to take part in the live demonstrations of battery recycling, and geopolymer making. Delegates were also apprised on the different possibilities of bulk waste utilisation and role of LCA in ensuring sustainability. Participants visited the Urban Recycling Centre of CSIR-NML to be appraised about various developments taking place.

The Lectures were delivered by Dr. Sanjay Kumar, Dr. Abhilash, Dr. S.K. Sahu, Dr. M.K. Jha, Dr. Pratima Meshram, Mr. Rohit Meshram, Ms. Aarti Kumari, Dr. S. Nath, Dr. D. Paswan, Dr. S. Chakravarty and others. The program received excellent feedback from participants concerning lectures and demonstrations. Many participants advised for such programs in quick successions to apprise the entrepreneurs about recent development of technology and practises.

The program concluded with distribution of certificates by Director, CSIR-NML, who in his concluding remarks mentioned the responsibility of CSIR-NML in such endeavours. He reiterated that CSIR-NML is envisaging to the sole destination for the industries and entrepreneurs in the area of waste recycling and utilisation. Dr. Abhilash delivered the vote of thanks for the event.

Following are the topic of the Lectures delivered & demonstration by the Experts: Dr. Manis Kumar Jha /Dr. Jhumki Hait – E-Waste recycling: Focus on PCBs and Devices Dr. Dayanand Paswan – Processes for Conversion of Steel Plant Waste in To Value

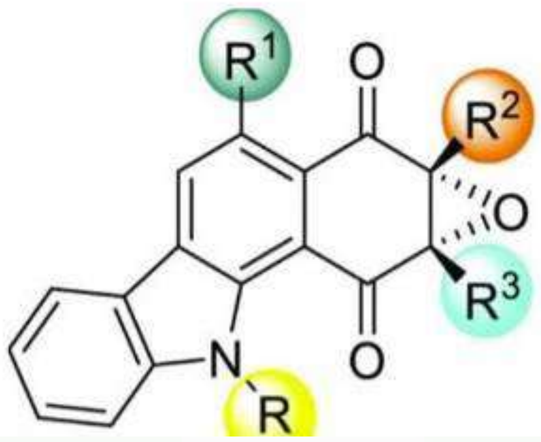
Dr. Sushant Nath/Dr. T.C. Alex – Geopolymer Processing of Wastes Rohit Meshram- Case studies on LCA for recycling Dr. S. Chakravarty – Role of Advanced Analytical tools, Demonstration on Recycling of LEDs and Magnets – Ms. Aarti/Dr. S.K.Sahu Demonstration on Recycling of Batteries – Dr. Pratima Meshram Demonstration on Recycling of Process Wastes/Tailings- Dr. Abhilash Demonstration for Geopolymer Processing of Wastes (Dr. S.Nath/ Dr. T.C. Alex) and Demonstration for Recycling of PCBs and Devices (Dr. M.K. Jha/ Dr. J.Hait)

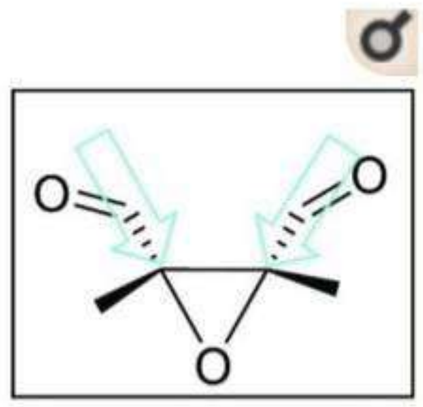
Published in:
The Avenue Mail

Antibiotic drug target identified by Indian researchers

CSIR-CDRI

28th November, 2019





Indian researchers have identified a protein pathway in an antibiotic-resistant bacterial strain called Staphylococcus aureus (S. aureus) and also a new molecule that can target this pathway. This may help develop new antibacterial drugs in future. The new molecule - indole based quinone epoxide (IND-QE) - has been developed by scientists at the CSIR-Central Drug Research Institute (CDRI), Lucknow and Indian Institute of Science Education and Research (IISER), Pune. This molecule can cross the bacterial cell barriers and disrupt the functioning of MarR proteins which are essential for the growth and survival of S. aureus bacteria. Development of new antibiotics is a major challenge, given the increasing bacterial resistance. New antibiotics are usually based on natural products such as fungal or plant extracts, or from large chemical libraries, which are a series of stored chemicals. The researchers have selected a relatively less-explored process of antibiotic discovery. "A novel set of proteins (MarR) has been identified in S. aureus that could be targeted by antibacterial agents in order to tackle severe infections. This has led to the inhibition of extremely drug-resistant VRSA bacteria.", said Dr. Harinath Chakrapani, a researcher at IISER, Pune. The study results have been published in Journal of Medicinal Chemistry. IND-QE were synthesized at IISER Pune, while researchers at CSIR-CDRI screened the compounds against a panel of pathogens. It was again followed by the experiments at IISER Pune to identify and validate the protein targets of these compounds. S. aureus is commonly found on human skin and mucosal membranes. if allowed to enter the bloodstream or internal tissues, it can cause serious infections such as

endocarditis (heart valve infection leading to heart failure or stroke), osteomyelitis (bone infection) or pneumonia etc. It is an infection causing bacteria which can readily become resistant to antibiotics. The MarR protein found in bacteria is essential for its growth and survival which can be destroyed by IND-QE molecule.

Apart from Dr. Harinath Chakrapani, the researchers included Dr. Sidharth Chopra from CSIR-CDRI, Lucknow and Dr. Isha Soni, Dr. Siddhesh S. Kamat, Amogh Kulkarni, Dr. Dhanashree S. Kelkar, Dr. Allimuthu T. Dharmaraja, Rathinam K. Sankar, Gaurav Beniwal, Abinaya Rajendran and Sharvari from IISER Pune.

Published in:
Business Line

Experts brainstorm on recycling of metallurgical wastes at NML

Mail News Service

Jamshedpur, Nov. 27 : The three-day Professional Training programme on 4R Waste 2019 was organised by CSIR-National Metallurgical Lab (NML) coordinated by Dr. Abhilash, Principal Scientist and Dr. K.L. Hansda, Sr. Principal Scientist.

The 4R-WASTE 2019 shall focus on imparting tutorial and hands-on on various processing options for treating the waste streams (e.g., tailings, scrap, red mud, WEEE, slags, etc.), to convert metal-containing wastes to products or reuse in an altered form for sustainable utilization and waste remediation. Speakers with core R&D experience in developing and practicing /translating multiple approaches to recycling metals and associated materials -backed up by slides, videos, and the on-site demonstrations. Particular emphasis is given to combinations of physical, hydrometallurgical, and pyrometallurgical processing, along with associated regulations, to facilitate economical recycling and sustainable waste utilization.

The programme was formally inaugurated by Dr. IndranilChattoraj, Director, CSIR-NML Jamshedpur. Dr. Chattoraj welcomed the participants and appreciated them for coming to CSIR-NML to attend this three-day training programme. He highlighted the need of recycling of metallurgical waste. He added that the need to recycle is not only to remediate waste, but to extract the values out of it. The need to shed the habit of being KABAADIWALA is the motto to organise this program.

Dr. Lakshmi Raghupathy, Ex-Director, MOEF, TERI elaborated the need of Life Cycle Assessment (LCA) in waste recycling. She emphasized that to stop generating waste, one cannot stop production, but effectively recycling and framing the circulation economy pathway, production reduce the waste generated. She also deliberated on the E-waste guideline of Govt. of India.

Dr. MitaTarafder, Chief Scientist & Head, RPBD Division discussed about the importance of training programme. She mentioned that this training programme is imitative of CSIR-NML, for aspiring industries, researcher and entrepreneurs in the field of waste management and creating trainers who will train other people in the industry and ultimately create awareness in the society.

Dr. Sanjay Kumar, Sr. Principal Scientist & Head, Metal Extraction & Recycling Division, spoke about the issue related to waste. He focused on the processing of waste being done by the unskilled workers in a non-eco-friendly manner. He mentioned that this training program is the first phase and in future more phases (6R) are to be conducted. He mentioned the need of 4R to drive India circulate economy. He added that NML being a premier lab in such endeavor and motivated participants to learn and interact.

Around 32 delegates are from different parts of India, namely - RINL; AcSIR; NTU, UK; Tata Steel, RSPL Ltd; Walle Infotech; CSMCRI; Vedanta; NMRL, Pune; IMMT and so on participated in the programme.

Published in:
The Avenue Mail

CSIR-NML

28th November, 2019

कचरे की वजह से नहीं रोक सकते उत्पादन, रिसाइक्लिंग ही उपाय

एनएमएल में ई वेस्ट रिसाइक्लिंग पर तीन दिवसीय प्रशिक्षण का उद्घाटन

जागरण संवाददाता, जमशेदपुर : कचरा न हो या कम हो, इसके लिए उत्पादन को नहीं रोका जा सकता। उत्पादन से निकलनेवाले कचरे को निस्तारण का श्रेष्ठ उपाय रिसाइक्लिंग ही है।

यह कहना था एमओईएफ की पूर्व निदेशक डॉ. लक्ष्मी रघुपथी का। वे बुधवार को राष्ट्रीय धातुकर्म प्रयोगशाला में रिसाक्लिंग ऑफ मेटलर्जिकल वेस्ट विषयक तीन दिवसीय प्रोफेशनल ट्रेनिंग प्रोग्राम के उद्घाटन समारोह को संबोधित कर रही थी।

उन्होंने कहा कि प्रभावी तरीके से रिसाइक्लिंग के जरिए एक अलग अर्थव्यवस्था की ओर कदम बढ़ाए जा सकते हैं। डॉ. लक्ष्मी रघुपथी ने वेस्ट रिसाइक्लिंग में जीवन चक्र मूल्यांकन की व्याख्या करने के साथ ही ई वेस्ट को लेकर भारत सरकार की गाइडलाइन के बारे में भी जानकारी दी। तीन दिवसीय प्रोफेशनल ट्रेनिंग प्रोग्राम फोर आर वेस्ट 2019 का उद्घाटन करते हुए एनएमएल जमशेदपुर के निदेशक डॉ. इंद्रनील चट्टोराज ने ई वेस्ट रिसाइक्लिंग की जरूरत पर बात करते हुए कहा कि यह केवल कचरे के निस्तारण की बात नहीं है बल्कि इसके मूल्य को समझने की जरूरत है।

मुख्य वैज्ञानिक डॉ. मीता तरफदार ने प्रशिक्षण कार्यक्रम के महत्व के बारे में बताते हुए कहा कि यहां से प्रशिक्षण लेनेवाले विभिन्न उद्योगों के अन्य लोगों को प्रशिक्षण देंगे ताकि व्यापक स्तर पर जागरूकता लाई जा सके।

वरिष्ठ प्रधान वैज्ञानिक डॉ. संजय कुमार ने अकुशल लोगों द्वारा पर्यावरण के प्रतिकूल तरीके से की जानेवाली रिसाइक्लिंग के खतरों के प्रति विस्तार से आगाह किया।

एनएमएल में प्रोफेशनल ट्रेनिंग प्रोग्राम में आए प्रतिभागियों के साथ निदेशक डॉ. इंद्रनील चट्टोराज व अन्य वैज्ञानिक● जागरण

ट्रेनिंग प्रोग्राम

- देशभर के विभिन्न संस्थानों से 32 प्रतिभागी कर रहे शिरकत
- ई वेस्ट को लेकर केंद्र की गाइडलाइन के बारे में भी जानकारी दी गई

देशभर के विभिन्न संस्थानों से ये प्रतिभागी ले रहे प्रशिक्षण

इस प्रोफेशनल ट्रेनिंग प्रोग्राम में आरआइएनएल, एसीसीआइआर, एनटीपीसी, यूके, टाटा स्टील, आरएसपीएल लिमिटेड, वाले इफोटेक, सीएसएमसीआरआइ, वेदांता, एनएमआरएल पुणे, आइएमएमटी सहित अन्य संस्थानों से 32 प्रतिभागी हिस्सा ले रहे हैं। प्रशिक्षण कार्यक्रम के समन्वयक प्रधान वैज्ञानिक डॉ. अभिलाष व वरिष्ठ प्रधान वैज्ञानिक डॉ. केएल हांसदा हैं। प्रशिक्षण के दौरान सैद्धांतिक के साथ ही व्यावहारिक जानकारियां भी दी जाएंगी। इसमें बताया जाएगा कि किस तरह विभिन्न प्रकार के कचरे की रिसाइक्लिंग की जा सकती है ताकि वेस्ट से दूसरे प्रकार के उपयोग में लाई जानेवाली वस्तुओं का उत्पादन किया जा सके। स्लाइडस, वीडियो व ऑन साइट प्रशिक्षण के माध्यम से फिजिकल, हाइड्रोमेटलर्जिकल व पायरोमेटलर्जिकल प्रोसेसिंग के बारे में बताया जा रहा है। बेहतर, टिकाऊ व कम लागत वाली रिसाइक्लिंग तकनीक की जानकारी भी प्रतिभागियों को दी जा रही है।

Published in:
Dainik Jagran

Annual students conference 2019 by CSIR-NCL from today

CSIR-NCL 27th November, 2019

An annual students conference will be held on November 28 and 29 by CSIR- National Chemical Laboratory (CSIR-NCL), Pune in coordination with NCL Research Foundation. The two day conference will be held in six sessions. The six sessions will include many scientific talks by around thirty CSIR-NCL research students along with special talks by the guests.

J W McBain Memorial Lecture will be delivered by Amitabha Chattopadhyay, CSIR-Centre for Cellular and Molecular Biology (CSIR-CCMB), Hyderabad on a topic namely 'G Protein-coupled Receptors in the Context of the Membrane Bilayer: An Intimate Association with Cholesterol' on November 28,' said the official notification.

An industry-talk will be given by G P Singh, senior vice-president, Lupin Limited, Pune on the topic 'Process Development in the Pharmaceutical Industry: An Overview' while Suresh Bhargava, distinguished professor, RMIT University, Australia will also deliver a public talk on November 29. Calum Drumond and Charlotte Conn, both professors from RMIT University, Australia will alsointeract with the CSIR-NCL students in the last session of the conference.

The conference will start at 9:30 AM on November 28 at CSIR-NCL Auditorium. CSIR-National Chemical Laboratory (CSIR-NCL, http://www.ncl-india.org), Pune is a research, development and consulting organization with a focus on chemistry and chemical engineering.

Published in:

The Times of India

CSIR-IGIB

27th November, 2019

Broader understanding of Indian genomic sequencing likely in next 5 yrs: CSIR-IGIB Director

Ahmedabad, Nov 27 (UNI) Director of CSIR-Institute of Genomics and Integrative Biology (CSIR-IGIB) and Head of Translational Research in Lung Diseases, and noted scientist Dr Anurag Agrawal on Wednesday said that in next five years a broader understanding of what was a normal genomic sequence for Indians was likely to be achieved.

Talking to media here after inaugurating Neuberg Center for Genomic Medicine (NCGM) of Neuberg Diagnostics Private Limited (NDPL), ranking among the top 4 diagnostic service providers in the country, here today Agrawal said that the study and data collection with regard to genes of Indian people was advancing. India was a diverse country with different kind of people so their genes would also be somewhat different. In next five years enough data and study would be available to understand as to what was normal for the Indian genes for at least 80 per cent population.

To a query he also said that with advance in the studies and collaborations etc the genomics based personalized medical treatment would also become affordable for common people in coming times in India. 'Health ecosystems of future will be based on the idea of digital twins, our digital health equivalents, monitored and evaluated by wellness algorithms. Genomics is at the core of these concepts and I am delighted to see that the Indian private sector is now working in concert with academic organisations for creating next-generation services of social and economic importance to India,' he added.

On the occasion he also informed about CSIR-IGIB's in principal agreement to partner with NDPL for licensing of technologies for various genomics-scale healthcare applications including population-scale whole genome sequencing, knowledgebase for which has been developed at CSIR-IGIB.

NCGM today also inaugurated the NOVASEQ 6000, the highest throughput DNA sequencer currently available in the world. With its acquisition, NCGM is the only private lab in country to house the most powerful sequencer which offers high-throughput sequencing across a broad range of applications. It supports the study of genetic links between health and disease at an unprecedented scale by making it possible to sequence more samples at greater depth, in order to discover rare and novel genetic variants. This advanced sequencing system will make it possible to envision a future in which all people can benefit from Precision Medicine.

Dr Sandip Shah, Executive Director, Neuberg Diagnostics Private Limited and Dr GSK Velu, Chairman & Managing Director, Neuberg Diagnostics Private Limited said that Neuberg intents to collaborate with CSIR-IGIB, the premier laboratory of CSIR, having demonstrated expertise in Genomics with aim to utilize India's intrinsic sequencing capacity and showcase the tremendous advantage of employing local technical resources and manpower across India's public and private sector as we work to fulfil the mission of 'Make in India'.

Notably, CSIR-IGIB is a premier laboratory of Council for Scientific and Industrial Research (CSIR), India and is engaged in research of national importance in the areas of Genomics, Molecular Medicine, Bioinformatics and Proteomics. It has expertise in genomics, demonstrated through the Indian Genome Variation project, the sequencing of first Indian personal genome followed by genome sequencing of over 1000 individuals from India and ongoing clinical genomics efforts in rare and common diseases with a large number of public and private healthcare institutions in the country.

UNI RAJ RHK1944

Published in:
UNI

First phase of 'Water for Change' project begins in three cities

CSIR-CSIO 27th November, 2019

Experts who have participated in the panel discussion at the one-day project launching workshop on 'Water for Change-integrative and fit for purpose water sensitive design framework for fast growing livable cities' held at hotel Malabar palace here on Tuesday, stressed the need for providing cost-effective technological solutions, knowledge and capacity building concerning effective governance and planning to tackle challenges facing by the cities selected for the execution of five-year mega project.

They have also opined the need of inter-department coordination for effective project execution. The experts during the workshop organized by Kozhikode based centre for water resources and management (CWRDM) in association with department of science and technology (DSP) and Netherlands Organization for Scientific Research (NWO) under Indo-Netherlands Bilateral programme, also highlighted the need of waste water reuse and a separate master plan for drainage for Kozhikode corporation.

A survey covering sanitary engineering, hydrology, urban planning, governance, ecology will be conducted covering three selected cities-Kozhikode corporation in Kerala, Bhuj in Gujarat, Bhopal municipal corporation area in Madhya Pradesh in the first phase and Shimla in the second phase.

The project will be executed with the active participation of 12 organizations which includes six Indian organizations of-IIT Roorkee and Gandhinagar; MANIT, Bhopal; CEPT University, Ahmedabad; CWRDM, Kozhikode and CSIR-CSIO, Chandigarh and six organizations from Netherland, namely Delft University of Technology, Dutch Research Institute for Transitions (DRIFT); Delft; University of Twente; IHE Delft Institute for Water Technology; IRC Wash and Deltares.

M L Kansal of IIT Roorkee said the need of the hour is sustainable development by giving special emphasis on issues in the limits of cities selected for project execution. While Pranab Kumar Mohapatra of IIT Gandhinagar detailed the technical aspects of water for change project. P P Anilkumar, head of the department of Architecture, National Institute of Technology- Calicut, spoke about smart water management for smart cites to ensure water supply for all. P S Harikumar, head of the department of water quality division of CWRDM said bacterial contamination of water and deterioration of Connolly canal are the major issues in the corporation limits which needs to be addressed. Premanandan, executive engineer of major irrigation department said setting up of a flood control lock across BK (Beypore-Kallai) stretch at Kolathara can mitigate 70% flood related issues in the city limits.

Earlier, MLA A Pradeep Kumar, in his inaugural said efforts are afoot for the creation of an artificial lake on 40 acres of land and forest on another 20 acres of land at Paroppady.

Published in:
The Times of India

Bioprocessing India National Meet in Mysuru

CSIR-CFTRI 27th November, 2019

CSIR-Central Food Technological Research Institute (CFTRI), Mysuru, will host the seventh Bioprocessing India National Meet in December. The meet of researchers in the area of bioprocessing will be organised in association with the Association of Food Scientists and Technologists-India, Mysuru, and the Defence Food Research Laboratory (DFRL), Mysuru, from December 14 to 16. Bioprocessing is an area of manufacturing focussed on materials from biological sources and includes frontline research areas such as biomolecular research on proteins, enzymes and microbes, biosensors, bioseparations and bioreactors with sues in food processing and preservation, nutraceutical and plant biotechnology, waste utilisation, computational biology, and synthetic biology, a release said. The event aims to provide a forum to all research communities involved in bioprocessing for finding solutions to the bioprocessing needs of agri-food resources that are so critical to overall food security, health and wellness. The meet will be accompanied by Ideation, a competition for college students for the presentation of novel ideas or innovation, an industrial exhibition showcasing products and processes of the future, and 45 sessions on various perspectives of bioprocessing.

Registration

Registration can be done online. The meet is open to engineers, researchers, and industries in the area of bioprocessing.

Those interested may visit http:// bpic.cftri.com/bpic2019.

For further details, call Satyendra Rao on 99868 46730 or V.S. Chauhan on 94498 22736.

Published in:

The Hindu

CSIR-CSIO

27th November, 2019

अच्छी खबर

डायग्नोसिस में इस्तेमाल हो रही आयातित किटों पर निर्भरता होगी खत्म, सीएसआइओ के वैज्ञानिकों ने तैयार किया कारगर सेंसर

स्वदेशी किट से 500 वाली जांच अब महज तीन रुपये में

जागरण विशेष

वीणा तिवारी ● चंडीगढ़

मधुमेह, ह्रदयरोग, रक्तचाप, स्तन कैंसर आदि रोगों का निदान (डायग्नोसिस) अब स्वदेशी सेंसरयुक्त किट के जरिये सस्ता और आसान हो जाएगा। चंडीगढ़ स्थित केंद्रीय वैज्ञानिक उपकरण संगठन (सेंट्रल साइंटिफिक इंस्ट्रूमेंट्स ऑर्गेनाइजेशन, सीएसआइओ) की यह खोज आयातित किट पर निर्भरता खत्म कर देगी। विदेशी किट से निदान पर मरीजों को फिलहाल 100 गुना से भी अधिक खर्च करना पड़ रहा है।

सीएसआइओ का कहना है कि अब डायग्नोसिस के लिए विदेशी कंपनियों की महंगी जांच किट आयात करने की नौबत नहीं आएगी। भारत में ही ऐसी किट विकसित कर ली गई है, जो विदेशी किट की तुलना में 100 गुना कम दाम पर उपलब्ध होगी। ऐसा संभव हो पाया है वैज्ञानिकों द्वारा तैयार किए गए विशेष सेंसर से। इस सेंसर की मदद से अलग-अलग बीमारियों की जांच के लिए बनाई जाने वाली जांच किट का निर्माण स्वदेश में संभव हो सकेगा। अब तक भारत में कोई भी कंपनी ऐसा सेंसर नहीं बना रही थी। जिस कारण विदेशी कंपनियों से मुंहमांगी कीमत पर किट आयात करनी पड़ रही थीं।

चंडीगढ़ स्थित सीएसआइओ (सेंट्रल साइंटिफिक इंस्ट्रूमेंट्स ऑर्गेनाइजेशन) में बनाए गए विशेष सेंसर के साथ सीनियर साइंटिस्ट डॉ. प्रवीण कौशिक (बाएं) और डॉ. आकाश ● जागरण

मधुमेह, ह्रदयरोग, रक्तचाप, स्तन कैंसर जैसे रोगों का निदान स्वदेशी डायग्नोसिस किट के जरिये होगा सस्ता और आसान

इस सेंसर को बनाने वाले सीएसआइओ के वैज्ञानिकों का कहना है कि उनके इस शोध के बूते देश में डायग्नोसिस के क्षेत्र में जल्द ही बड़ा परिवर्तन देखने को मिलेगा। सेंसर में कार्बन इंक का प्रयोग किया गया है जबकि विदेशी सेंसर में कॉपर और अन्य धातुओं का प्रयोग किया जाता है। जिससे उसकी कीमत 300 से 500 रुपये प्रति सेंसर होती है। सीएसआइओ में बनाए गए विशेष सेंसर की लागत तीन से पांच रुपये आ रही है।

सीएसआइओ की नैनो टेक्नोलॉजी यूनिट में इस सेंसर को बनाने वाले सीनियर वैज्ञानिक डॉ. प्रवीण कौशिक और डॉ. आकाश ने बताया कि इसे बनाने में स्क्रीन प्रिंटिंग टेक्नीक से बनाए गए इलेक्ट्रोड का प्रयोग किया गया है। नैनो टेक्नीक से तैयार हुआ यह सेंसर शरीर के एंजाइम परीक्षण के माध्यम से नतीजे देगा। जैसे शुगर लेवल की जांच के लिए सेंसर में ग्लूकोज ऑक्सीडेज एंजाइम का उपयोग करना होगा। ठीक इसी तरह ब्रेस्ट कैंसर और अन्य बीमारियों के लिए भी निर्धारित एंजाइम का उपयोग करना होगा। बता दें कि शरीर में एक विशेष प्रकार के उत्प्रेरक पाए जाते हैं, जो मूल रूप से कार्बनिक अवस्था में होते हैं। इन्हें एंजाइम कहा जाता है।

डॉ. प्रवीण कौशिक ने बताया कि सेंसर का उपयोग अलग-अलग बीमारियों से संबंधित जांच के लिए किया जा सकता है, जिसके लिए इसे अलग-अलग तरह से इस्तेमाल करना होगा। सेंसर को प्रोग्राम्ड मशीन में इस्तेमाल किया जा सकेगा, जैसा कि मौजूदा किट या मशीनों में होता है, और जांच चंद सेकेंड में हो जाएगी।

दैनिक जागरण चंडीगढ़: : 27-11-2019

Published in:
Dainik Jagran

CSIR-IITR

27th November, 2019

आईआईटीआर को मिला सम्मान

लखनऊ। भारतीय विष विज्ञान अनुसंधान संस्थान को हिंदी भाषा में उत्कृष्ट कार्य के लिए सम्मानित किया गया। निदेशक प्रो. आलोक धावन, केपी शर्मा व हिंदी अधिकारी चन्द्र मोहन तिवारी ने ये पुरस्कार प्राप्त किया।

Published in:
Hindustan

CSIR-NML

27th November, 2019

एनएमएल के 70 साल पूरे | आइसीटी मुंबई के वाइस चांसलर प्रो जीडी यादव बोले

भविष्य में हाइड्रोजन है वैकल्पिक ईंधन व ऊर्जा स्रोत

लाइफ रिपोर्टर @ जमशेदपुर

एनएमएल-सीएसआइआर के स्थापना के 70 साल पूरे होने पर एनएमएल परिसर में मंगलवार को एक कार्यक्रम का आयोजन किया गया. इसमें मुख्य अतिथि के रूप में इंस्टीट्यूट ऑफ केमिकल टेक्नोलोजी (आइसीटी) मुंबई के वाइस चांसलर प्रो जीडी यादव ने हिस्सा लिया. अपने संबोधन में उन्होंने कहा कि भविष्य में हाइड्रोजन वैकल्पिक ईंधन के साथ ही ऊर्जा का महत्वपूर्ण स्रोत हो सकता है. ग्लोबल एनर्जी सिनेरियो एंड हाइड्रोजन इकोनोमी लेक्चर टॉपिक के लिए पुरस्कार प्रदान करने के दौरान उन्होंने कहा कि यदि हाइड्रोजन को हरित तरीके से उत्पादित किया जा सके तो कोयला व तेल जलने से होनेवाले प्रदूषण व पारिस्थितिकी बदलाव की समस्या का समाधान संभव है. भारतीय शोधार्थी ग्रीन हाइड्रोजन का उत्पादन करने के विभिन्न तरीकों पर काम कर रहे हैं. इससे पूर्व राष्ट्रीय धातुकर्म प्रयोगशाला सीएसआइआर-एनएमएल के 70वें स्थापना दिवस का आयोजन मंगलवार को एनएमएल सभागार में धूमधाम से किया गया. इस अवसर पर स्लाइड शो के जरिये संस्थान की 70 साल की यात्रा को दिखाया गया. उल्लेखनीय कार्य के लिए विभिन्न वैज्ञानिकों व कर्मियों को सम्मानित भी किया गया. अतिथियों का स्वागत एनएमएल के निदेशक डॉ इंद्रनील चट्टोराज ने किया. उन्होंने विगत वित्तीय वर्ष में संस्थान की गतिविधियों पर प्रकाश डाला. मुख्य अतिथि ने 2019 का वार्षिक पुरस्कार प्रदान किया. इनमें बेस्ट टेक्निकल पेपर के लिए निझावन अवार्ड, श्रेष्ठ तकनीकी विकास के लिए अल्टेकर अवार्ड, इन हाउस प्रोजेक्ट के लिए बनर्जी अवार्ड, बेहतर वक्ता के लिए एसपी मेहरोत्रा अवार्ड, श्रेष्ठ कर्मचारी के लिए पी रामचंद्र अवार्ड शामिल था. अंत में धन्यवाद ज्ञापन प्रिंसिपल साइंटिस्ट डॉ संजय कुमार ने किया.

इन्हें किया गया सम्मानित

- **बेस्ट टेक्निकल पेपर के लिए निझावन अवार्ड** : शिवेंद्र सिन्हा, डा डी मिश्रा, डॉ ए अग्रवाल, डॉ केके साहू
- **बेस्ट टेक्नोलॉजी के लिए अल्टेकर अवार्ड** : डॉ दयानंद पासवान, डॉ एम मलाथी, डॉ डी बंदोपाध्याय, एस टाटोराई
- **श्रेष्ठ कर्मचारी के लिए पी रामचंद्रराव अवार्ड (तकनीकी)** : डॉ संजय कुमार व रामाश्रय राम
- **श्रेष्ठ कर्मचारी के लिए पी रामचंद्रराव अवार्ड (गैर तकनीकी)** : रॉबर्ट बारला व सीताराम पासवान
- **बेस्ट कोलेकियम स्पीकर के लिए एसपी मेहरोत्रा अवार्ड** : महेश वालंज व स्नेहाशीष त्रिपाठी
- **स्पेशल एप्रिसिएशन अवार्ड** : प्रेमजीत सिंह व एस शंकर

Published in:
Prabhat Khabar

CSIR-NGRI

27th November, 2019

हिंदी में पत्राचार को बढ़ावा देने पर जोर

हैदराबाद । 26 नवंबर । एजेंसी

हैदराबाद में मंगलवार को राजभाषा कार्यान्वयन समिति की छमाही बैठक.

राजभाषा कार्यान्वयन समिति (नराकास), हैदराबाद (3) की छमाही बैठक आज संपन्न हुई. इस अवसर पर एनजीआरआई के निदेशक डॉ. वी.एम. तिवारी ने राजभाषा के प्रयोग में हो रही क्रमिक प्रगति का ठोस जायजा लेने के लिए और भावी योजनाएं तैयार करने के उद्देश्य से इस तरह की बैठकों में भाग लेने के लिए कहा.

नाभिकीय ईंधन सम्मिश्र, हैदराबाद के अध्यक्ष एवं मुख्य कार्यपालक डॉ. दिनेश श्रीवास्तव ने कहा है कि संविधान के अनुच्छेद 351 के तहत केंद्रीय कार्यालयों में राजभाषा के प्रचार एवं प्रसार का दायित्व केंद्र सरकार को सौंपा गया है. केंद्र सरकार के कार्यालयों में हिंदी में नोटिंग एवं पत्राचार को बढ़ावा दिया जाना चाहिए. वरिष्ठ हिंदी अधिकारी सीएसआईआर-एनजीआरआई चि.वे. सुब्बाराव ने कार्यालयों की छमाही प्रगति रिपोर्ट की समीक्षा की और राजभाषा के क्षेत्र में हुई प्रगति की प्रशंसा की और कमियां दूर करने का आग्रह किया. आयोजन में केंद्र सरकार के कार्यालयों से 95 प्रतिनिधियों ने भाग लिया. इस अवसर पर जयशंकर प्रसाद तिवारी, सहायक निदेशक, हिंदी शिक्षण योजना, हैदराबाद ने हिंदी के प्रशिक्षण कार्यक्र मों और राजभाषा विभाग द्वारा जारी वार्षिक कार्यक्र म पर प्रकाश डाला और अनुरोध किया है कि अप्रशिक्षित पदाधिकारियों को उपयुक्त प्रशिक्षण दिलवाने हेतु सदस्य कार्यालय उपाय करें.

Published in:
Lokmat

CSIR-NEERI

27th November, 2019

पालमपूर, लखनऊ, म्हैसूर, नागपूरच्या तज्ज्ञांचे मार्गदर्शन

प्रयोगशाळेत विकसित उत्पादनांची शेतकऱ्यांना माहिती

प्रतिनिधी, नागपूर

प्रयोगशाळेद्वारा विकसित उत्पादनांची माहिती जाणून घेताना शेतकरी.

वैज्ञानिक व औद्योगिक अनुसंधान परिषदेच्या विभिन्न प्रयोगशाळेद्वारा विकसित उत्पादनांनी ॲग्रोव्हिजन कार्यशाळेत शेतकऱ्यांवर विशेष प्रभाव टाकला. शेतकऱ्यांकरिता विकसित विविध कृषी उत्पादन आणि उपकरण ॲग्रोव्हिजनमध्ये ठेवण्यात आले होते.

सीएसआयआरच्या वैज्ञानिकांनी शेतकऱ्यांना कमी किंमतीत शेतीचे उत्पादन वाढवण्यासाठी नवे तंत्रज्ञान मांडले. लेमनग्रास आणि पामारोजाच्या विविध प्रजातींची शेती करण्याचा सल्ला त्यांनी दिला. या पद्धतीचा प्रयोग विदर्भाच्या ६०० एकर क्षेत्रात यशस्वीरित्या करण्यात आला आहे, असेही त्यांनी सांगितले. सीएसआयआर, सीएमई आरआय, दुर्गापूरने कॉटन पिकिंग हेड आणि सौर स्वचलित सिंचन यंत्राबाबत शेतकऱ्यांना माहिती दिली. यामुळे भारनियमनादरम्यान शेतकऱ्यांना समस्या येणार नाहीत.

वर्तमानकाळात कापसाची बोंडे हातांनी निवडली जातात. सीएसआयआर-सीएमई आरआयद्वारा विकसित यंत्रामुळे ते सहज निवडले जातील. सीएसआयआर-आईएचबीटी, पालमपूरने शेतकऱ्यांना विदर्भात स्टेनियाची शेती करण्याचा सल्ला दिला. स्टेनियाचा उपयोग शेंगदाण्याच्या रूपात केला जाऊ शकतो, जे कॅलरीमुक्त आणि अधिक गोड असते. सीएसआयआर-एनबीआरआय, लखनऊ यांनी बायोप्लास्टिक, बायोफर्टिलायजर्स आदी सादर केले. सीएसआयआर-सीएफटीआरआय, म्हैसूर यांनी हनी-क्युबबाबत माहिती दिली. सीएसआयआर-नीरी, नागपूरने जाम आणि हिंगणघाट दरम्यान राष्ट्रीय महामार्गावर ग्रीन कॉरिडॉरच्या उभारणीबाबत माहिती दिली. ग्रामीण क्षेत्रात पडीक जमिनीला उपयोगात आणणे, फ्लायॲशच्या पहाडांवर बांबूचे उत्पादन आदीची माहिती दिली. केंद्रीय मंत्री नितीन गडकरी यांनी शेतकऱ्यांच्या हिताकरिता केल्या जाणाऱ्या या कार्याविषयी जाणून घेतले.

Scanned with CamScanner

Published in:
Pratinidhi

Researchers develop method for manufacturing optical components

CSIR-CSIO

26th November, 2019

Freeform optics is a emerging field of optics and it has a great potential in many fields. A group of researchers from Council for Scientific and Industrial Research-Central Scientific Instruments Organization (CSIR-CSIO) Chandigarh and Indian Institute of Technology (IIT) Delhi have developed a method that would help in manufacturing of optical components including simple shape optics to freeform optics by ultra-precision machining process and various related issues.

Currently manufacturing of complicated optical components such as freeform optics is very difficult due to its complicated shape and required high precision. Many other components are imported from other countries due to lack of research in optics fabrication domain in India.

Ultra-precision machining is one of the optics fabrication techniques. “This research work would help in understanding the various issues affecting the performance of ultra-precision machining process. The work is helpful to develop the freeform surface with nanometric surface finish and sub-micron profile accuracies” said Dr Vinod Mishra, researcher from CSIR-CSIO. With the help of developed process precision molds can be fabricated which can be utilized for mass production (molding is the process to develop the large quantities) and to cater the future needs of indigenous development of such optical components. Where ultra-precision machining process is used to make the material is removed from the surface in very controlled manner usually micrometre scale. “The material is removed with very sharp diamond cutting tool. Various parameters like vibrations, thermal issues, environmental conditions, machining conditions etc are affecting the surface quality. We have to minimize the effect of all these factors while we are targeting the nanometric surface

quality", told Dr Mishra. Freeform optics is a technique that is used in development of high-quality optical systems. Conventional lenses and mirrors have a simple shape that is either concave or convex and they have their limitations too. They cannot produce certain light-beam paths so lenses and mirrors with a more complex aspherical or freeform surface are needed. These shapes could be a lens shaped like a saddle or a banana. These are also used in various other fields like medical, defense, data storage and aerospace industries. Freeform optics is an advanced version of optical fibers. The basic difference between freeform optics and optical fibers is that optical fiber is a cylindrical shape dielectric waveguide (nonconducting waveguide) that transmits light along its axis, by the process of total internal reflection. Whereas freeform optics has asymmetrical shapes and they have no translational or rotational symmetry.

Optical fiber is used by many telecommunications companies to transmit telephone signals, Internet communication and cable television signals. It is also used in a multitude of other industries, including medical, defense/government, for data storage, and industrial/commercial. Freeform optics his method can also be used to develop smaller, lighter, high-resolution lenses and mirrors. New systems containing these components can be made smaller and lighter, which is a big plus for aerospace instruments, medical instruments and other fields.

Published in:
Business Line

Mental health issues should be destigmatised, says Harvard professor

CSIR-CCMB

26th November, 2019

Social media has a pernicious influence on impressionable minds, says Dr. Vikram Patel

Suicides rates among the young in India is highest in the world and it is more pronounced in the more socially advanced southern states when compared to the north as recorded in National Crime Records Bureau (NCRB) and other studies, hence society at large should be concerned and initiate proactive measures, said Vikram Patel, honorary professor, Pershing Global Health & Wellcome Trust principal research fellow at the Harvard Medical School, USA. Everyone should take serious note of this phenomena on why the young people in age group of 15-30 find the situation hopeless to take their own lives. Plus, it is more prevalent among the girls. De-stigmatising mental ill-health, engaging them to open up and helping them find the solutions would go a long way in understanding the restless adolescence when the brain is still developing, he said. Puducherry had the highest rate of suicides among youth with neighbouring Andhra Pradesh and Telangana not far behind. "It is interesting why suicides rates among young is less in Bihar, maybe it could do with aspirations and opportunities too," Dr. Patel pointed out. Delivering the CSIR-CCMB Foundation Day lecture on 'Transforming mental health globally through science and action' here on Tuesday, he gave a fascinating insight into the research he has been doing in the field of mental health of the young and said adolescence brain makes them prone to 'act without thinking of consequences'. "What scientists discovered recently, Walt Disney knew it decades ago as his movies showcase how the restless adolescent animal or human being as in 'The Jungle Book' and

'Lion King' acts. Earlier, it was just the family and the peer group but now social media too can have a pernicious influence," he explained. Social environment, childhood experiences, discrimination, violence, peer pressure, etc., could lead to mental health problems. Solution to tackle this crises, which has now even hit the US and UK, is to provide for ennobling conditions at home, access to mental health care at schools and colleges and even work places for youngsters to open up and talk about what stresses them and help them identify solutions.

"Unfortunately, there is no bio-marker to identify those with mental health issues. We all go through different mental states of mind. Actually, when you help others, you are helping yourself," he concluded. Earlier, CCMB Director Rakesh Mishra gave a presentation of recent studies and said the institute would collaborate with Dr.Patel to initiate studies on mental health genomics to to understand predisposition of mental illnesses.

Published in:
The Hindu

CSIR, CCRI harvester collects cotton without damaging bolls and plants

CSIR 26th November, 2019

About 12 million hectares of agricultural land in India is under cotton cultivation while 50 lakh ha in Maharashtra grows it, mainly the Bt Cotton. The gigantic task of harvesting the crop from such large number of plants is done manually, involving huge manpower and several days.

The Council of Scientific and Industrial Research (CSIR), through its West Bengal-based Central Mechanical Engineering Research Institute (CMERI) and city-headquartered Central Cotton Research Institute (CCRI), have developed a prototype to harvest the crop within a couple of hours with minimum human effort.

CMERI's senior scientist Ajay Yadav, who is the brain behind the prototype, told TOI that the harvester will not only save time but also prevent damage to plants and immature bolls. The machine also allows more than one picking for late maturing bolls. The speed will protect standing crops from sudden change is weather too. In October, farmers in Maharashtra suffered damages to standing crops when unseasonal rains lashed their farms.

"For single head picking, the productivity is 0.25 hectare per hour. It is purely mechanical picking and suitable for Bt cotton plants having 3 to 4 foot height," said Yadav. Normally, more than one day is required to collect cotton from mature bolls from a same size field. The trials were held at CCRI's campus in Nagpur.

"The machine has 432 spindles which rotate at 3000 to 4000rpm. The cotton gets sucked in and the doffer pads wipe the spindle before sending the cotton on one side. For now, we used simple mesh baskets," he said.

The prototype was attached to a tractor and it was taken over the plants. “To use the machine, farmers will have to grow plants by leaving some space for the wheels of the machine and its vehicle. A bigger machine can take in three to four rows at a time,” Yadav said. The scientist, under the central government’s science and technology department, is trying to design a tractor mounted machine. “This prototype is attached to the tractor. The tractor-mounted cotton picking machine will have an inbuilt cotton picking head collection system and storage,” he said.

Yadav said the prototype can be converted into a big machine — a complete cotton harvester. “This was for demonstration. The machine was developed in Ludhiana and brought to Nagpur,” he said. The research bodies are now planning to introduce a conveying system to collect cotton from large fields. The cost for prototype was Rs10 to 12 lakh for a single head. “Industrial production will bring down the cost of a complete harvester. Yet, it can be used on a rental basis rather than owning it,” Yadav said.

HOW IT WORKS

* Machine picks only mature cotton bolls while unopened ones and plant are not damaged bolls

* The machine can complete picking in 0.25 hectare per hour while manual collection takes longer time

* Machine is mounted on a tractor

* It has spindles which suck cotton by rotating at high speed

* The doffer pads wife spindles and puts cotton on one side

Other CSIR participants in Agrovision 2019

* CSIR-CIMAP, Lucknow, showcased improved varieties of lemon grass and palmarosa. Various herbal products, including skin care, hair care, mosquito repellent, nutraceuticals, disinfectants etc were also showcased

* CSIR-IHBT demonstrated a potential of Stevia cultivation in Vidarbha which is known as sweet herb of Paraguay and 300 times sweeter than sucrose

* CSIR-NBRI exhibited the biofertilizers, bioplastics and herbal products, including gulal, dye, soft drinks, chocolates, jam etc

* CSIR-CFTRI apprised farmers about bakery, beverage, cereal, fruit and vegetable products

* CSIR-NEERI exhibited its work on the green corridor development on national highway between Jam and Hinghanghat in Nagpur region

Published in:
The Times of India

NML celebrates its 70th Foundation Day

CSIR-NML

26th November, 2019

The 70th Foundation Day of CSIR-National Metallurgical Laboratory, Jamshedpur was celebrated on Tuesday at the laboratory's auditorium. The function started with CSIR-NML Geet along with a slide show on CSIR-NML's journey from the initial days to the present. The director, CSIR NML Indranil Chattoraj briefed about the CSIR-NML activities and performance during the last financial year. Chief Guest, Prof. G.D. Yadav, gave away the laboratory's Annual Awards 2019, namely –Nijhawan Award for best technical paper; Altekar Award for best technology developed; Banerjee Award for best in-house project; S.P. Mehrotra Award for Colloquium speaker; P. Ramachandra Rao Award for best employee both from technical and non-technical. Dr. I. Chattoraj, Director, CSIR-NML gave away the meritorious Student Awards and gave away Special Appreciation Award instituted this year.

Chief Guest Prof. G.D. Yadav delivered the Nijhawan Memorial lecture on the topic, "Global Energy Scenario and Hydrogen Economy". He mentioned that in the future, hydrogen would be an alternative fuel and an important energy source. If hydrogen can be produced in a green manner, it will address the pollution and climate change issues associated with coal and oil burning. Researchers in India are working to produce green Hydrogen in several ways including splitting of water to produce hydrogen and oxygen. Prof. Yadav said that the demand for hydrogen is largest in petroleum refinery and ammonia production, while automotive fuel is an emerging sector with huge potential in the future. Dr. Sanjay Kumar, Sr. Principal Scientist & Head, MER Division, CSIR-NML proposed the vote of thanks.

Published in:

Avenue Mail

CSIR-CFTRI

25th November, 2019

Home / Headlines / CSIR-CFTRI and FOBICS sign MoU

Headlines | Karnataka | Mysore

CSIR-CFTRI and FOBICS sign MoU

Murali 25/11/2019

Facebook | Twitter

Mysuru, November 25:- A Memorandum of Understanding (MoU) was signed between CSIR-CFTRI and Food and Biotechnology Consultancy Services (FOBICS), Mysuru, last week.

FOBICS is a leading consultancy firm based in Mysuru functioning for the last five years. The services offered include DPR preparation, plant design, upgradation of the processing facility, product development, market survey, HRD, etc., to food processing industry including entrepreneurs and startups. The company is offering turn-key solutions to the needy industry in the areas such as spices processing, cereal processing, fermentation processes and machinery development.

Through the MoU, both the organisations have agreed to work together to provide premium services to industry/ entrepreneurs in terms of process development, scale-up, technology transfer, etc. The move is likely to benefit a large number of SMEs and enterprises who have set goals for establishing a robust and viable food-based venture with a strong scientific and market basics.

The MoU document was exchanged between Dr KSMS Raghavarao, Director, CSIR-CFTRI and MG Byndoor, managing director, FOBICS. *(MR)*

Published in:

City Today

Please Follow/Subscribe CSIR Social Media Handles

CSIR INDIA

CSIR_IND

CSIR India