

CSIR in Media



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‘Need to connect MSMEs to deep science and tech’

CSIR-CCMB



Curtains come down on two-day DSIR conclave

To mark the fifth anniversary of the establishment of Common Research and Technology Development Hubs (CRTDH) next month, a two-day conclave organised by the Department of Scientific and Industrial Research (DSIR) concluded on Saturday. It was held at CSIR-Centre for Cellular and Molecular Biology (CCMB) at Habsiguda. The agenda of the conclave was to share successes and learnings from the 12 CRTDHs. Coordinators and representatives of micro, small and medium enterprises (MSME) which benefited from the centres participated in the conclave inaugurated by Shekhar C. Mande, secretary, DSIR, and

10th November, 2019

Director General of Council of Scientific and Industrial Research (CSIR). Addressing a press conference on the occasion, he said that MSMEs provide 60% jobs across all sectors in the country and it is important to connect them to deep science and technology. The CRTDHs provide access to the technology and infrastructure in labs at public-funded institutions such as the CCMB and Indian Institute of Technology-Kharagpur.

It helps in translation of scientific knowledge, ideas and inventions into products and services. Apart from MSMEs, startups and innovators also incubate ideas in the hubs. The CRTDHs operate on a cost plus non-commercial basis and are evolving a business model for self-sustainability. Besides, CCMB Director Rakesh Mishra said they help the MSMEs and startups to meet consultants and investors. Earlier, only findings of research at the CCMB were developed into products. Now, the ideas are incubated in the hubs. Giving examples of a few products being developed at the CRTDH in CCMB,

Dr Mishra said a small company which was working on developing quality water used in dialysis is ready to launch the product. Another company is developing antibodies for treatment of certain forms of cancer. Currently, an injection for the treatment costs ₹2-3 lakh. The product would bring down the cost by 10 times.

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पॉकेट परफ्यूम-जंगली गेंदे का तेल सभी की पसंद

सीएसआईआर के स्टाल पर हर्बल उत्पादों पर दिखा लोगों का क्रेज, हींग-केसर में दिखाई उत्सुकता

तनुज सैनी-धर्मशाला

पुलिस मैदान धर्मशाला में ग्लोबल इन्वेस्टर्स मीट को लेकर स्थापित की गई एग्जीबिशन में हिमालय जैव संपदा प्रौद्योगिकी पालमपुर की प्रदर्शनी में शनिवार को लोगों की खूब भीड़ जुटी।

प्रदर्शनी में हींग व केसर सहित संस्थान द्वारा तैयार जैव संपदा से तैयार किए गए उत्पादों को खूब पसंद किया गया। इसमें मुख्य रूप से युवतियों ने हर्बल लिपस्टिक और पॉकेट परफ्यूम आकर्षण के केंद्र रहे। वहीं, हिमाचल में हींग तथा केसर की खेती



को लेकर भी लोगों ने काफी उत्सुकता दिखाई। इसके अलावा संस्थान में कांगड़ी धाम, जंगली गेंदे के लाभ व खेती प्रक्रिया सहित सजावटी फूलों की खेती तथा इनके भंडारण व बाजार को लेकर प्रश्न पूछते हुए दिखाई दिए।

आधुनिक दुनिया में अब लोगों को हर्बल उत्पादों के प्रयोग को लेकर भी रुचि बढ़ी है। पहाड़ों से मिलने वाली संपदाओं को मानव जीवन में अहमियत के बारे में जागरूक करने और इनके भंडारण तथा तैयार करने की विधि को लेकर हिमालय

जैव संपदा प्रौद्योगिकी संस्थान पालमपुर द्वारा विभिन्न प्रयोग किए जा रहे हैं। इस क्षेत्र में भी निवेशकों को आकर्षित करने तथा स्थानीय लोगों को भी इस क्षेत्र में स्वरोजगार शुरू करने के लिए संस्थान द्वारा

प्रेरित किया जा रहा है। प्रदर्शनी में जानकारी देते हुए डा. सुखविंद सिंह ने कहा कि हिमाचल में भी केसर की खेती को लेकर संभावनाएं तलाशी जा रही हैं। उन्होंने बताया कि हिमाचल में भरमौर, कुल्लू

तथा लाहुल-स्पीति के कुछ क्षेत्रों में केसर की खेती प्रायोगिक तौर पर की जा रही है। इसके अलावा हींग की खेती को लेकर भी हिमाचल के विभिन्न जिलों में प्रयोग किए जा रहे हैं।

स्थानीय किसान भी यदि किसी प्रकार की सहायता इस क्षेत्र में चाहते हैं, तो संस्थान द्वारा उनका पूरा सहयोग किया जाएगा। इसके अलावा स्टाल पर हर्बल उत्पादों को लोगों ने काफी पसंद किया। इसमें कांगड़ी धाम, मसाले, धूप, हर्बल लिपस्टिक, पॉकेट परफ्यूम, जंगली गेंदे के फूल का तेल, हर्बल शहद, टी कटेचिन, कॉर्न, क्रिस्पी एप्पल सहित अन्य उत्पादों को लोगों ने काफी पसंद किया।



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Divya Himachal

Researchers develop desi solar tech for indoor

CSIR-NIIST

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As the conventional solar technologies may not be a suitable choice for indoor environments in near future owing to the high costs involved, researchers from a Central lab, based in Kerala, have developed an indigenous semi-automatic fabrication unit for manufacturing dye-sensitized solar cell (DSC) based modules. DSCs contain synthetic dyes and harvests light by mimicking photosynthesis and are an efficient third generation indoor light harvesting technology, said researchers from the National Institute of Interdisciplinary Science and Technology (NIIST) which has developed the equipment. NIIST is one of the labs of the Council of Scientific and Industrial Research under the Union Science and Technology Ministry.

By developing indoor light harvesting photovoltaic cells, self-powered sensors can be realised and the battery life can be extended, pointed out an official from the Ministry. Their advantage lies in their ability to generate power from low levels of exposure to light including indoor lights like CFL, LED etc. Installed at CSIR-NIIST lab, the equipment has been selected on the Prime Minister Office's high priority implementation category, he said. The indigenous unit has been developed with the support of the Department of Science and Technology (DST) under the Ministry.

The entire equipment which was developed by the CSIR-NIIST partnering with Elixir Technologies, Bangalore has helped reduce cost of fabrication equipments to more than 60 per cent leading to true import substitution, said the researchers.

They said the fabrication process, molecules and materials were optimised keeping in mind end user requirements and applications thereby developing international competency in this photovoltaic sector.

The cell can be used in powering internet of things (IoT) smart devices, smart meters, water and energy management, smart parking, self-powered sensors, portable devices like those integrated in phones, tablets, mobile charging stations, backpack, in clothes and also solar power windows or aesthetically beautiful power producing glass windows.

According to experts, by 2020, there will be around 50 billion connected smart devices in the IoT domain which will be powered by batteries.

Appreciating the development, a scientist from the DST said India needs to develop expertise in manufacturing production equipment for photovoltaic technologies. “The country had been depending on technologies elsewhere and was importing them at a high cost. The NIIST fabrication unit has addressed this gap to a great extent and at a much lower cost,” he added.

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[The Pioneer](#)

खाद्य प्रसंस्करण में योजनाओं की भरमार

आईआईए भवन में उपमुख्यमंत्री केशव प्रसाद मौर्या ने किया इंडिया फूड एक्सपो का उद्घाटन

माई सिटी रिपोर्टर

लखनऊ। आईआईए भवन में शुक्रवार को इंडिया फूड एक्सपो की शुरुआत हुई। एक्सपो का उद्घाटन उपमुख्यमंत्री केशव प्रसाद मौर्या ने किया। मौर्या ने कहा कि खाद्य प्रसंस्करण को लेकर प्रदेश सरकार की ओर से कई योजनाएं चलाई जा रही हैं, जिनका लाभ देने के लिए महात्मा गांधी ग्राम्य स्वरोजगार

प्रशिक्षण कार्यक्रम भी चलाए जा रहे हैं। इस अवसर पर उन्होंने एक्सपो के स्टॉलों का भ्रमण भी किया और नाइट्रोजन कूल्ड आइसक्रीम का भी लुत्फ उठाया।

इस मौके पर महापौर संयुक्ता भाटिया भी मौजूद रहीं। तीन दिवसीय फूड एक्सपो के पहले दिन डिपार्टमेंट ऑफ हार्टीकल्चर एंड फूड के स्टॉल पर लोगों का रुझान खासा रहा। स्टॉल संभाल रहे अनूप श्रीवास्तव ने बताया कि खाद्य प्रसंस्करण के लिए प्रदेशभर में प्रशिक्षण

केंद्र खोले गए हैं, जहां आलू, आम, आंवला, हल्दी, लहसुन, मिर्च आदि के प्रसंस्करण के बारे में जानकारी दी जाती है। वहीं, प्रसंस्करित खाद्य पदार्थों में नमक, खटास, पेस्टीसाइड वगैरह की जांच के लिए रीजनल फूड रिसर्च एंड



उद्घाटन के बाद स्टॉलों का अवलोकन करते केशव प्रसाद मौर्या व मेयर संयुक्ता भाटिया।

पौधे से प्लास्टिक बनाने के विकल्प पर फोकस

दूसरी ओर एक्सपो में सेमिनार हुआ, जिसमें डॉ. मंजूषा श्रीवास्तव ने पौधे से प्लास्टिक बनाने के विकल्प सहित वेट लैंड टेकभनोलॉजी फॉर एसटीपी हर्बल फॉर्मूलेशन पर वक्तव्य दिए। ऐसे ही डॉ. पीपी गोठलवाल ने सीएफटीआरई के बारे में बताया। सीमैप के डॉ. दिनेश कुमार ने पहले सत्र में हर्बल उत्पादों पर हो रहे अनुसंधान के बारे में बताया जबकि डॉ. एसके चौहान ने फूड प्रोसेसिंग यूनिट लगाने के फायदों पर चर्चा की।

एनालिसिस सेंटर भी खुला है। वहीं गांवों में ग्राम स्वरोजगार योजना चलाई जा रही है, जिसके लिए अभी तक 300 आवेदन

आ चुके हैं। एक्सपो में आइसक्रीम बनाने, रोटी मेकर, ब्रेक मेकर आदि की मशीनों के डिस्प्ले भी किए गए हैं।

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Amar Ujala

EDMC to try chemical dust suppressant on trial basis

CSIR-NEERI

9th November, 2019

The East Delhi Municipal Corporation(EDMC), on an experimental basis, will use a ‘chemical-based suppressant’ to control dust pollution on Saturday. The corporation has procured “a combination of hexahydrate flakes and magnesium chloride powder” from a company based in Mumbai, senior EDMC officials said.

“The chemical, tested and certified by CSIR-NEERI (National Environmental Engineering Research Institute), when sprayed in the ambient atmosphere with water, makes dust and particulate matter very heavy. It settles it on the ground for six to eight hours at least,” said Dilraj Kaur, EDMC commissioner. “Water alone is not as much effective and keeps the dust suppressed for just about 15-30 minutes depending on the temperature, wind speed and traffic volume. For example, if it is hot during the day, the water molecules will evaporate faster and the dust will re-suspend in the air quickly,” she explained.

The ‘hexahydrate flakes and magnesium chloride’ formulation is mixed in water in a 1:200 ratio, senior engineer with EDMC, Arun Kumar, said. “When dust stays down for longer, we do not need to repeat our water-sprinkling exercise very frequently during the day. It not just reduces our effort and water wastage, but reduces damage to the road surface as well,” Kumar said. “We will try it out first at Mandoli -- one of our unauthorised areas that has an industrial hub and unpaved roads with lots of dust flying -- on Saturday. If it’s successful, we will try it out at our other areas as well,” he said.

Currently, EDMC is using 40 water-sprinkling machines of about 9,000 litres capacity, which make several trips during the day, spraying water in their routes. The corporation,

recently, had also decided to use treated sewage water to save fresh water from being wasted in the exercise. The Supreme Court, during a hearing on an air pollution matter recently, had asked the chief secretaries of Punjab, Haryana and Delhi to “explore all possible options to mitigate dust” and submit a report as soon as possible.

The Central Pollution Control Board (CPCB) had also asked the three corporations to go for ‘chemical-based dust suppressants’ instead of normal water-based dust suppressants. Last year, chemical dust suppressants were tried out but did not yield the desired results, CPCB officials said.

“For these chemicals to act, you need a certain level of humidity in the atmosphere. In Delhi, the required moisture is not available, especially during winters. High quality of these chemicals can harm the plants and even humans. All this will have to be considered while experimenting with it this time,” the official said.

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CSIR-IHBT

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पीएम ने निहारे सीएसआईआर आईएचबीटी पालमपुर के स्टाल

कार्यालय संवाददाता, पालमपुर

स्मार्ट सिटी धर्मशाला में आयोजित ग्लोबल इन्वेस्टर मीट में सीएसआईआर-हिमालय जैवसंपदा प्रौद्योगिकी संस्थान पालमपुर ने अपने शोध एवं विकास द्वारा तैयार प्रौद्योगिकियों को प्रदर्शित किया। प्रधानमंत्री नरेंद्र मोदी ने इस इन्वेस्टर मीट का शुभारंभ किया तथा सीएसआईआर-आईएचबीटी के प्रदर्शित स्टाल सहित विभिन्न विभागों के स्टालों को देखा। प्रदर्शित तकनीकों ने आगंतुकों और निवेशकों का ध्यान आकर्षित किया। संस्थान की प्रौद्योगिकियों को तीन स्टालों में प्रदर्शित किया गया। कृषि विभाग स्टाल देश के गैर परंपरागत क्षेत्रों में केसर की

खेती के लिए कृषि प्रौद्योगिकी पैकेज, बांस-कोयला का उत्पादन और पोर्टेबल भट्टी, सगंध तेलों के निष्कर्षण हेतु आसवन इकाइयां, अल्पावधि में शिटाके मशरूम की उन्नत खेती व विटामिन डी-2 समृद्ध पौष्टिक उत्पादों का विकास, शहरी विभाग अपशिष्ट प्रबंधन को जैविक पदार्थों का जैव अपघटन और सीएसआईआर-आईएचबीटी का स्वयं का स्टाल किसानों की आय बढ़ाने को हिमालयी क्षेत्रों में हींग और न्यूट्रास्ट्यूटिकल एवं पुष्पकृषि व जैव प्रौद्योगिकी उत्पादों का प्रदर्शन भी किया गया। प्रधानमंत्री के प्रदर्शनी स्टालों में भ्रमण के दौरान शोध उत्पादों की जानकारी देने के लिए संस्थान के निदेशक डा. संजय स्वयं उपस्थित रहे।

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Divya Himanchal

Dangers of dioxins loom large over Brahmapuram

CSIR-NIIST

8th November, 2019

Public health at stake

What are dioxins?

- Dioxins are highly toxic chemical compounds which are harmful to health. They also are known as Persistent Organic Pollutants (POPs)

CSIR NIIST study findings

- Toxic equivalents found in residual ash samples – 158.5 ng TEQ per kg
- Dioxin levels at Brahmapuram are **3 times** higher than those at Perungudi, an infamous dumpyard in Chennai
- Average dioxin levels in ambient air are 10.3 pg TEQ/ m³ at a distance of 50 m to 100 m from the fire



The massive fire at the Brahmapuram dumping yard in February this year. FILE PHOTO

Recommendations

- Establishment of modern solid waste treatment plants
- Clearing dumpyards of wastes by 'bio-mining'
- Analysis of dioxins in animal origin food samples such as milk, egg, and meat

Dioxin levels found to be in the range of those in infamous dumping sites across the world

The levels of dioxin observed in residual ash samples analysed after the major fire at Brahmapuram on February 23 were in the range observed in various infamous waste dumping sites in Vietnam, Philippines, Cambodia, Netherlands, Greece, and the United States. This was revealed in a study conducted by the CSIR-National Institute for Interdisciplinary Science and Technology (CSIR-NIIST). The research team had carried out an on-site ambient air and residual ash sampling on February 24. Dioxins are highly toxic chemical compounds which are harmful to health, and they are known as Persistent Organic Pollutants (POPs).

“The average concentration of 158.5 ng TEQ (toxic equivalents)/kg observed in residual ash samples at Brahmapuram is in the range of dioxin levels observed in various infamous dumping sites of the world such as Vietnam, Philippines, Cambodia, Netherlands, Greece, and the USA. The dioxin levels reported at an infamous dumpyard soil in India at Perungudi in Chennai is 52 ng TEQ/kg. The level observed at Brahmapuram is about 3 times higher than that at Perungudi,” the study report said. The report prepared by the environmental technology division of the CSIR-NIIST found that the average dioxin levels observed in ambient air was 10.3 pg TEQ/ m³ at a distance of 50 metres to 100 metres from the fire. The observed levels are 50 and 10 times higher than reference and field blank data.

The Brahmapuram residue ash has a dioxin content of 159 ng TEQ/kg of ash. It is comparable with the results obtained from the ‘Burnhut studies’ (101.9 and 136.9 ngTEQ/kg of waste) conducted at the CSIR-NIIST. The quantity of dioxins emitted during the fire at Brahmapuram is 72 milligram toxicity equivalence. The figure was arrived at by using the emission factors determined in Burnhut studies, it said. The report recommended the setting up of modern solid waste treatment plants and clearing of dumpyards of wastes by ‘bio-mining’ to separate combustible and inert materials. Given the widespread burning of waste and dumpyard fires, the study recommended an analysis of dioxins in animal origin food samples such as milk, egg, and meat and human milk.

Researchers said several such fire breakouts had occurred in the past and were still occurring intermittently at Brahmapuram as well as at several small, medium and large-scale municipal solid waste open dumpyards across the State and the country.

The study findings indicate that alarmingly high levels of dioxins are getting emitted from such anthropogenic activities across the country. The possible health consequences of human exposure to these highly toxic POPs are a matter of great concern, researchers said.

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[The Hindu](#)

मिलावट के खिलाफ तकनीक • डेयरी के माध्यम से आमजन तक पहुंचने वाले दूध में मिलावट का पता लगाएगी मशीन दूध में मिलावट रोकने सीरी ने बनाया निगरानी सिस्टम, संग्रहण केंद्र से डेयरी तक कहीं भी गड़बड़ी की गई तो तुरंत पकड़ी जाएगी

भास्कर न्यूज़ | पिलानी/झुंझुनू

पशुपालकों से लेकर डेयरी के जरिए आमजन तक पहुंचने वाले दूध में मिलावट रोकने के लिए सीरी ने एक ऐसा निगरानी सिस्टम बनाया है जो इस पूरी प्रक्रिया के दौरान कहीं पर भी मिलावट होने पर पकड़ लेगा और उसकी रिपोर्ट देगा।

यह आरओ की तरह दिखनी वाली एक पोर्टेबल मशीन है। दरअसल, डेयरी से आने वाला दूध पशुपालक सबसे पहले अपने गांव व कस्बे में संग्रहण केंद्र पर देते हैं। इसके बाद यह कोल्ड स्टोर में जाता है। यहां से टैंकर के जरिए डेयरी में भेजा जाता है और डेयरी



पिलानी. समझौता पत्र सौंपते सीरी निदेशक।

से यह पैक होकर उपभोक्ताओं तक पहुंचता है। ऐसे में पशुपालक से लेकर डेयरी तक किसी भी जगह इसमें मिलावट की जा सकती है। इस मशीन को संग्रहण केंद्र, कोल्ड स्टोरेज और डेयरी में लगाकर दूध की जांच की जा सकेगी। इस रिपोर्ट

को यह हाथोहाथ सभी सेंटर पर भेज देगी। गुरुवार को सीरी ने इस मशीन के निर्माण व वितरण के लिए क्यूबॉयड आईओटेक प्राइवेट लिमिटेड, गुरुग्राम के साथ समझौता किया है। यह समझौता कंपनी के सीईओ उत्कर्ष कपूर और डॉ. जे.

एल. रहेजा, प्रमुख, पीएमई के बीच हुआ। इस अवसर पर निदेशक रामी काचरू, चीफ टेक्नोलॉजी ऑफिसर, राहुल अग्रवाल, सीएसआईआर-सीरी के डॉ. एस.ए. अकबर और डॉ. पीसी पंचारिया सहित अन्य लोग मौजूद थे।

ऐसे करेगी काम : ऑनलाइन होगी रिपोर्ट

सबसे पहले संग्रहण केंद्र पर लाए गए दूध को इस मशीन से जांचा जाएगा। इसी प्रकार की एक मशीन कोल्ड स्टोरेज में और डेयरी में लगी होगी। जहां जहां दूध पहुंचेगा उसकी जांच होती जाएगी और रिपोर्ट ऑनलाइन रहेगी। मसलन, यदि टैंकर में ले जाते समय मिलावट करता है तो डेयरी में जांच में पकड़ी जाएगी। संग्रहण केंद्र और कोल्ड स्टोरेज की जांच रिपोर्ट डेयरी के पास पहले से होगी।

नमक, यूरिया, कॉस्टिक सोडा, अमोनियम सल्फेट का पता लगाएगी

इस मशीन के जरिए दूध में मिलाए जाने वाले पदार्थों जैसे नमक, यूरिया, कॉस्टिक सोडा, अमोनियम सल्फेट का पता लगाया जा सकेगा। दूध का सैंपल इसमें डाला जाएगा। इसके बाद यह महज 20 से 25 मिनट में इसकी रिपोर्ट दे देगी। इसके अलावा यह दूध में वसा और दूध की ठोस गैर वसा सामग्री की भी जानकारी देगी। इस सिस्टम को जयपुर सीरी केंद्र के प्रभारी डॉ. पीसी पंचारिया और उनकी टीम ने बनाया है।

CSIR-CIMAP

8th November, 2019

55 researchers from across the country join two-day workshop organized by CSIR-CIMAP

Lucknow, Nov 7 (UNI) A National Workshop on 'Using IBIN Database for Research and Education in Ecology and Conservation' started here at CSIR-Central Institute of Medicinal and Aromatic Plants (CIMAP) on Thursday.

The two-day workshop, which has brought together around 55 researchers from across the country, is being jointly organized by CSIR-Central Institute of Medicinal and Aromatic Plants (CIMAP), Lucknow, and Indian Institute of Remote Sensing (IIRS), a unit of Indian Space Research Organisation (ISRO), Dehradun.

The inauguration of the National Workshop was done by Dr Alok Dhawan, Director, CSIR-Indian Institute of Toxicology Research, Lucknow (IITR), Lucknow.

Delivering the welcome address, Dr Abdul Samad stressed that many institutes in the country are working for documenting the bioresources of India and this information is scattered.

He applauded the efforts made through Indian Bioresources Information Network (IBIN) by Department of Biotechnology (DBT), Indian Institute of Remote Sensing-Indian Space Research Organisation (IIRS-ISRO), and University of Agricultural Sciences (UAS), Bangalore to provide a single platform for sharing of biological resources.

During this occasion, Dr Sameer Saran, National Coordinator IBIN, IIRS, Dehradun, briefed about the genesis of IBIN network which has originated from various bio diverse projects done by ISRO. He also told about the various features like modeling, decision support system which is provided on the IBIN portal.

In his inaugural address, Dr Alok Dhawan applauded the efforts of providing a de-centralized bioresource portal. However, he cautioned about the validity and authenticity of the data being put into this database. He also stressed on the development of mechanism for preventing bio privacy and sharing of data among genuine users.

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Online repository set up to compile research on air quality in country

CSIR-NEERI

8th November, 2019

The Council of Scientific Industrial Research (CSIR)'s National Environmental Engineering Research Institute (NEERI) on Wednesday launched what it said was the country's first interactive online repository, IndAIR (Indian Air quality Studies Interactive Repository). Dr Rakesh Kumar, Director of CSIR-NEERI said the aim of the project is to make air quality research available to everyone. NEERI has been working to develop a web repository of all the research that has been done on the subject in the country.

IndAIR has archived approximately 700 scanned documents from pre-Internet times (1950-1999), 1,215 research articles, 170 reports and case studies, 100 cases and over 2,000 statutes to provide the history of air pollution research and legislation in the country. This includes all major legislation in the country dating back to 1905. The endeavour will be the first comprehensive effort to inventorise surviving Indian research and analysis on air pollution, its causes and effects and present these studies in an easily accessible web format for the media, researchers and academics.

It took 22 people and 11 months to give shape to IndAIR. This included procuring archived material from various institutions across the country, looking into studies available outside the Internet domain, developing the website and interviewing experts across India to comprehend the scope of the history and the project. The endeavour received support from institutions such as the National Institute of Science, Communication and Information Resources (NISCAIR), Bhabha Atomic Research Center (BARC) and National Archives of India (NAI). Institutions such as The Energy Resources Institute (TERI), Ministry of Environment, Forest and Climate Change (MoEFCC) and Central Pollution Control Board (CPCB) also partnered with NEERI for the project.

“Several documents related to the research on air pollution were not in the public domain. We have digitised them,” Kumar said. He further said there were examples when government agencies were able to regulate the emission of pollutants from industries. He cited an example of Chembur in Mumbai being critically polluted in the 1970s and 80s. “After computer modelling, we arrived at estimates as to what was the likely amount of pollutants in the air due to emission from industries. We were able to set emission control limits for these industries, which later helped clean up the air,” Kumar told The Indian Express.

He pointed out that previously, it was difficult to import anything and hence air quality instruments were fabricated and designed in the country. “Now we are getting sensors which are perhaps not tested and getting all kind of numbers related to air quality. We are creating a hotchpotch situation and need to be responsible when we are looking at numbers,” Kumar said. Referring to the current “emergency-like” situation due to severe air quality in Delhi, the NEERI director said it was an “episodic” situation.

Published in:
[The Indian Express](#)

JCB India, CSIR-CRRI jointly develop pothole repair machine

CSIR-CRRI

7th November, 2019

Manufacturer of earthmoving and construction equipment JCB India showcased its all new pothole repair machine. Developed jointly with inputs from the CSIR-CRRI, the JCB pothole repair machine can serve roads and highway maintenance. Based on the popular JCB 3DX Backhoe Loader, the machine, along with its set of multifunctional attachments, has been developed indigenously over a period of one year. It is a solution that has been driven by the sector, offering industry-first features designed to transform traditional Roads and Highway maintenance operations in the areas of safety and productivity.

Shekhar C Mande, DG, CSIR appreciated the idea of demonstration of prototype machine to all the stakeholders and getting their feedback to improvise the machine further. Satish Chandra, director, CSIR-CRRI stressed upon the need of such mechanism for road maintenance agencies in India and indicated that this is the first attempt to develop an indigenous pothole repair machine in the country.

Subir Kumar Chowdhury, MD & CEO of JCB India, said, “Ever since we started our operations in India four decades ago, JCB machines have contributed immensely towards the creation of Roads and Highways across the country. There is a need to develop a modern, productive and viable solution for the repair of roads that have been built over time. This new product developed by us with the support of the CRRI is based on our popular 3DX Backhoe Loader. We feel that it will have significant utility in improving infrastructure in India. It will also help in improving safety through the reduction of accidents caused due to potholes.”

Published in:
[The Times of India](#)

CSIR-CBRI

6th November, 2019

Vigilance Awareness Week At CSIR-CBRI, Roorkee: Gram Sabha & Students Activities Organized



Roorkee: CSIR-Central Building Research Institute, Roorkee is observing Vigilance Awareness Week with the theme "Integrity: A Way of Life" during October 28-November 06, 2019.

On November 05, 2019, CSIR-CBRI team of Dr. Atul Kumar Agarwal, Senior Principal Scientist, Shri Anil Kumar, Controller of Administration and Shri Sushil Kumar, Senior Technical Officer visited nearby village and schools to organize various awareness activities, under the banner of Vigilance Awareness Week.

CSIR-CBRI team visited Government upper Primary School, Shikarpur, Narsan,

Haridwar to enlighten the students on the issue of corruption. The students pledged to maintain honesty in all their activities, to work for eradication of corruption and bring pride to the nation. Dr. Atul Kumar Agarwal presented a lecture on "Students against Corruption: Integrity and Ethical Conduct" to educate the students on the issue of corruption in the academic sphere and preventive vigilance measures. Discussions were carried out on how the students could adopt the core values of honesty, morality, responsibility and integrity in their academic endeavours and daily conduct.

The team organized Gram Sabha at Shikarpur,

Hazzarpur Village, Landhora to sensitize the villagers and create awareness amongst the masses regarding gravity of the threat of corruption. Posters/banners were displayed and pamphlets/handouts on preventive activities and anti-corruption measures were distributed amongst the villagers.

The team also visited Rajeev Gandhi Navodaya Vidyalaya, Shikarpur and organized student awareness and interactive activities to instil ethical values in young minds. Dr. Atul Kumar Agarwal administered the Integrity Pledge to the students. Students were also encouraged to take e-pledge by visiting the CVC website. Students displayed their en-

thusiasm to adopt a moral behaviour and fierceness to fight corruption through Slogans and Skits (Nukkad Natak) on corruption awareness, and created a human chain to spread awareness on corruption and importance of integrity in daily conduct. Poster Competition and Essay Competition were organized for students of class IX-XII on "Integrity: A Way of Life" to generate healthy discussion on the ill effects and prevention of corruption. Students participated in the various activities with great zeal along with their Principal and teachers.

During the Closing Ceremony, posters, slogans and banners made in

different competitions during the week were displayed. In his Presidential Address, Dr. N. Gopalakrishnan, Director, CSIR-CBRI, Roorkee encouraged the scientists to weed out corruption through transparency, accountability and ethical conduct and maintain academic integrity in their research. Dr. Suvir Singh conducted the programme, Dr. Atul Kumar Agarwal presented a brief on the various activities organized during the week and Shri Anil Kumar presented the vote of thanks. The Vigilance Awareness Week concluded with the prize distribution to the winners of the various programmes organized during the week.

Published in:

[The Hawk](#)

CSIR-CBRI

6th November, 2019

भ्रष्टाचार खत्म करने को दिलाइ शपथ

सीबीआरआई में सतर्कता जागरूकता सप्ताह संपन्न, वैज्ञानिकों ने किया जागरूक

जागरण संवाददाता, रुड़की: केंद्रीय भवन अनुसंधान संस्थान (सीबीआरआई) रुड़की में सतर्कता जागरूकता सप्ताह के समापन समारोह में विभिन्न प्रतियोगिताओं में बनाए गए पोस्टर, नारे और बैनर प्रदर्शित किए गए। प्रतियोगिताओं के विजेताओं को सम्मानित किया गया। साथ ही विद्यार्थियों को सत्यनिष्ठा की शपथ दिलाई गई।

मंगलवार को आयोजित समापन समारोह में सीबीआरआई के निदेशक डॉ. एन गोपालकृष्णन ने संस्थान के वैज्ञानिकों को पारदर्शिता, जवाबदेही और नैतिक आचरण के माध्यम से भ्रष्टाचार को खत्म करने और अपने शोध में शैक्षिक प्रमाणिकता बनाए रखने के लिए प्रोत्साहित किया। उधर, मंगलवार को संस्थान के वरिष्ठ प्रधान वैज्ञानिक डॉ. अतुल कुमार अग्रवाल, प्रशासन नियंत्रक अनिल कुमार और वरिष्ठ तकनीकी अधिकारी सुशील कुमार की टीम ने शहर के आसपास के गांवों और विद्यालयों में जागरूकता अभियान चलाया। राजकीय



सतर्कता जागरूकता सप्ताह के तहत बच्चों को शपथ दिलाते सीबीआरआई के वरिष्ठ प्रधान वैज्ञानिक डॉ. अतुल अग्रवाल • जागरण

उच्च प्राथमिक विद्यालय, शिकारपुर, नारसन, हरिद्वार का दौरा करते हुए टीम ने विद्यार्थियों को भ्रष्टाचार के मुद्दे पर जागरूक किया। विद्यार्थियों ने अपनी गतिविधियों में ईमानदारी बनाए रखने, भ्रष्टाचार उन्मूलन के लिए कार्य करने और सामूहिक प्रयासों से राष्ट्र को गौरवान्वित करने का संकल्प लिया। डॉ. अतुल कुमार अग्रवाल ने शैक्षणिक क्षेत्र में फैले भ्रष्टाचार और इसके निरोधक

उपायों पर विद्यार्थियों को जागरूक करने के लिए भ्रष्टाचार के विरुद्ध विद्यार्थी: ईमानदारी और नैतिक आचरण पर एक व्याख्यान प्रस्तुत किया। वहीं टीम ने शिकारपुर, हजरापुर ग्राम, लंडौरा में ग्राम सभा का आयोजन किया और ग्रामवासियों को भ्रष्टाचार के खतरे के प्रति जागरूक किया। ग्रामवासियों को पंपलेट एवं हैंडआउट वितरित किए गए। वहीं राजीव गांधी नवोदय विद्यालय शिकारपुर में युवा

मन में नैतिक मूल्यों को स्थापित करने के उद्देश्य से विद्यार्थी जागरूकता और संवादात्मक गतिविधियों का आयोजन किया। नौवीं-बारहवीं कक्षा के विद्यार्थियों के लिए ईमानदारी- एक जीवन शैली विषय पर निबंध व चित्रकला प्रतियोगिता का भी आयोजन किया गया। विद्यार्थियों ने पूर्ण उत्साह से विभिन्न गतिविधियों में भाग लिया। कार्यक्रम का संचालन डॉ. सुवीर सिंह ने किया।

Published in:

[Dainik Jagran](http://DainikJagran.com)

Monograph on mridangam released

CSIR-CLRI



It has been authored by Umayalpuram K. Sivaraman, former scientists T. Ramasami and M.D. Naresh

Vice-President M. Venkaiah Naidu released a monograph, 'Musical Excellence of Mridangam', a rare fusion of art and science of an ancient South Indian instrument on the CSIR-Central Leather Research Institute (CLRI) campus in Chennai on Tuesday. The book, an outcome of research and development on standardisation of fabrication, tonal characterisation and new innovations in design of the percussion instrument, was authored by mridangam maestro and Padma Vibhushan awardee Umayalpuram K. Sivaraman and former scientists T. Ramasami (former Secretary of

6th November, 2019
the Department of Science and Technology) and M.D. Naresh.

Methods and materials

The monograph traces the various methods and materials used in the making of the instrument and analyses them. Umayalpuram K. Sivaraman had contacted the CLRI several years ago to undertake a collaborative scientific research on the instrument. Appreciating the contributors to the monograph, the Vice-President termed it a "seamless fusion of arts and science", which also paid a tribute to the civilisational legacy of the country. Mr. Naidu also emphasised the need to protect the country's culture and civilisation. "The monograph bears ample evidence of its intent and responsible societal action. Mridangam is an instrument made with ordinary and locally available materials, but exhibits musical beauty," he said.

'An essential instrument'

Governor Banwarilal Purohit, in his address said: "The mridangam is as essential to a

Carnatic music recital as the tabla is to a Hindustani musical programme and the Pakhwaj to a Dhrupad classical recital. The research monograph on the ‘Musical Excellence of Mridangam’ being launched today is the result of collaboration between an artiste and scientists.” State Fisheries Minister D. Jayakumar said it was a celebration of the collaboration of science and arts in Chennai.

N. Murali, president, The Music Academy, Chennai and Chairman of Kasturi & Sons Limited said: “Research on mridangam so far has mainly been on the techniques of mridangam playing and the art itself, and barely on the methods and the materials of constructing a mridangam,” which the monograph speaks about.

Talking about the materials used in the instrument and how they were locally available, Mr. Murali said he had a strong feeling that our traditions also have a strong scientific basis. “This is one of the early path-breaking attempt in marrying tradition with an artisanal craft and modern science.” Director of CSIR-CLRI Santosh Kapuria and prominent Carnatic singer Geetha Rajashekar were present.

Published in:
[The Hindu](#)

CSIR-IMTECH

6th November, 2019

CSIR-IMTECH to get first microbial cell repository as per US regulatory standards

Amanjeet Singh Salyal

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CHANDIGARH: In a first, a national repository of microbial cell bank as per the parameters of US' Food and Drug Administration (FDA), will be established at CSIR-Institute of Microbial Technology (IMTECH), Sector 39, Chandigarh.

The facility for biopharmaceutical relevance related to current good manufacturing practices, requires organisations to use technologies and systems that are up-to-date in order to comply with the regulations. It provides for the systems that assure proper design, monitoring and control of manufacturing processes along with facilities, hence, ensuring the identity, strength, quality and purity of drug products being manufactured.

A grant of around ₹15 crore has been given by National Biopharma Mission-Biotechnology Industry Research Assistance Council (NBM-BIRAC) under 'Innovate in India (I3) - Empowering Biotech Entrepreneurs and Accelerating Inclu-



■ A grant of ₹15 crore has been given by the National Biopharma Mission-Biotechnology Industry Research Assistance Council. HT FILE

sive Innovation' scheme.

The cell bank will be used for research and development of biopharmaceuticals, including biotherapeutics and vaccines used for the treatment and prevention of cancer, diabetes, autoimmune disorders, heart-related diseases and microbial infections.

Scientists of the national centre for excellence in microbial sciences said the new facility would provide research organisations, start-ups, micro, small and medium enterprises

(MSMEs) and entrepreneurs high-quality microbial cell banks at an affordable cost.

"Currently, getting quality cell banks is a major challenge in India as it involves high cost, licensing and royalty charges, uncertainty in identity and purity, shipping costs, delays in delivery and customs duty," head of the project and CSIR-IMTECH principal scientist, Ravi PN Mishra, said. The scientist also said the new facility would fill up the gap in biopharmaceutical space across the country,

adding that it is expected to catalyse India's rapidly growing biopharmaceutical sector.

'TO STRENGTHEN INDUSTRY-ACADEMIA COLLABORATION'

Mishra hailed the mandate, saying that it would strengthen the industry-academia collaboration as mandated by the government of India for accelerating discovery research for an early development of biopharmaceuticals. "The facility will tentatively be functional for use by various stakeholders, including pharma industries, in a span of nearly two years subject to the approval from the drug controller general of India (DCGI)," he said.

Talking about the project, CSIR-IMTECH acting director Manoj Raje said, "This will be the first of its kind facility in India and will serve the national mandate for the development of affordable biological drugs such as biotherapeutics and vaccines against various communicable and non-communicable diseases." He said the facility would cater to the entire country.

Published in:

Hindustan Times

CSIR-NML

6th November, 2019

एनएमएल में बेस्ट वेल्डर प्रतियोगिता

जागरण संवाददाता, जमशेदपुर : राष्ट्रीय धातुकर्म प्रयोगशाला (एनएमएल) में नेशनल स्किल कंपटीशन फोर बेस्ट ऑफ बेस्ट वेल्डर्स 2019 की कड़ी में ब्रांच लेवल बेस्ट वेल्डर प्रतियोगिता का आयोजन किया गया। इंडियन इंस्टीट्यूट ऑफ वेल्डिंग (आइआइडब्ल्यू) जमशेदपुर शाखा व सीएसआइआर - एनएमएल की ओर से यह आयोजन किया गया। इसमें राष्ट्रीय स्तर के कार्यक्रम कौशल पहल के तहत सीएसआइआर की ओर से प्रत्येक प्रतिभागी को विशेषज्ञता और जरूरी आधारभूत संरचना उपलब्ध कराई जा रही है। इसका उद्देश्य औद्योगिक जरूरतों के हिसाब से प्रतिभागियों की वेल्डिंग कौशल क्षमता का आकलन करना है।

प्रतियोगिता पांच श्रेणियों में हुई - बेस्ट स्ट्रक्चरल वेल्डर इन



मुख्य अतिथि के साथ एनएमएल के निदेशक डॉ. इंद्रनील चट्टोपाय्य व अन्य • जागरण

एसएमएडब्ल्यू, बेस्ट स्ट्रक्चरल वेल्डर इन जीएमएडब्ल्यू, बेस्ट पाइप वेल्डर इन एसएमएडब्ल्यू, बेस्ट पाइप वेल्डर की एसएमएडब्ल्यू व बेस्ट पाइप वेल्डर इन जीटीएडब्ल्यू।

विजेताओं को राष्ट्रीय स्तर की प्रतियोगिता में भाग लेने का मिलेगा मौका : ब्रांच लेवल प्रतियोगिता में प्रत्येक श्रेणी के विजेता को राष्ट्रीय स्तर

की प्रतियोगिता नेशनल स्किल कंपटीशन फोर बेस्ट ऑफ द बेस्ट वेल्डर्स में अपनी क्षमता दिखाने का मौका मिलेगा। इस नेशनल वेल्डिंग सेमिनार में विभिन्न उद्योगों से कुल 18 प्रतिभागी शामिल होंगे।

मंगलवार को प्रतियोगिता की शुरुआत में एनएमएल के निदेशक डॉ. इंद्रनील चट्टोपाय्य ने सभी का स्वागत

करते हुए वर्तमान समय में कुशल वेल्डर की जरूरत को रेखांकित किया। उन्होंने कहा कि कुशल वेल्डरों की आज काफी जरूरत है। हेड मैटीरियल कैरेक्टराइजेशन डॉ. महादेव शोम ने इंडियन इंस्टीट्यूट ऑफ वेल्डिंग की गतिविधियों के बारे में जानकारी दी।

चीफ साइंटिस्ट डॉ. मीता तरफदार ने सभी प्रतिभागियों को शुभकामनाएं दी और सीएसआइआर - इंटीग्रेटेड स्किल इनीशिएटिव प्रोग्राम सहित सीएसआइआर - एनएमएल के विभिन्न प्रशिक्षण कार्यक्रमों के बारे में भी बताया। आइआइडब्ल्यू के सचिव डॉ. अनंत प्रभाकरन ने मुख्य अतिथि संजय केडिया (चीफ ऑफ मैकेनिकल मेंटेनेंस टीएसएल) का परिचय दिया। अंत में धन्यवाद ज्ञापन सीनियर साइंटिस्ट डॉ. रजनीश कुमार ने दिया।

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