

CSIR in Media



75 Years of
CSIR Touching Lives

A Daily News Bulletin
6th June 2017



CSIR

5th June 2017

Minister bats for simple lifestyle to save planet

SNS & PTI

NEW DELHI, 4 JUNE

No meeting like the one in Paris or any law can preserve the environment if people don't come forward to address the issue, Union minister Harsh Vardhan today said on the eve of World Environment Day.

Addressing a function, the minister said it is futile to celebrate World Environment Day if people don't inculcate in themselves the idea of conserving the environment throughout the year and battled for a minimalist lifestyle to save the planet.

The environment minister asked people to use public transport and bicycles, reduce the use of air-conditioners and use water judiciously and in appropriate amount.



He said the sentiment behind the World Environment Day should not be restricted to a single day, but must pervade every moment of the day, till the World Environment Day next year.

Emphasising the need for positive energy and awakening among the people, the minister called for efforts to realise the Prime Minister's vision of

Swachh Bharat and cleanliness. He directed his Ministry officials to start water conservation in right earnest.

Dr Vardhan said that youth programmes such as 'Jigyasa', which is to be launched soon, in which Kendriya Vidyalaya students are taken to CSIR laboratories, should be replicated in the field of environment also. The minister said that

Department of Science & Technology and Ministry of Environment, Forest and Climate Change must work together in the field of waste management - be it solid waste, plastic waste, or E-waste and in creating waste to wealth and waste to energy.

Similarly, he said, the Ministry of Human Resource Development and Environment, Forest and Climate Change can work together to rope in students and harness their strength in spreading messages of positive health and environment protection in the society. The environment minister appealed to NGOs, professionals, teachers and students to make environmental protection, and nature and biodiversity conservation, a strong social movement.

Published in:

The Statesman, Page no. 6

CSIR-IHBT

6th June 2017

बड़ी पहल अब हवा में तैयार किए जाएंगे पौधे

मुकेश मेहरा, पालमपुर

पर्यावरण में आ रहे बदलाव और लगातार घट रही जमीन के कारण विलुप्त हो रहे पौधों को दोबारा तैयार करने के लिए औद्योगिक अनुसंधान परिषद का हिमालयन जैव संपदा प्रौद्योगिकी संस्थान (आइएचबीटी) पालमपुर हवा में बिना मिट्टी के पौधे तैयार कर रहा है। यह पौधे आमतौर पर लगने वाले समय से पहले तैयार हो रहे हैं। इसके लिए वैज्ञानिक केवल लवणीय पदार्थों का प्रयोग कर रहे हैं।

आइएचबीटी में हाइड्रोपोनिक और एरोपोनिक तकनीक से इन पौधों का संरक्षण किया जा रहा है। वैज्ञानिक डॉ. आशीष बरघट और डॉ. भव्य भार्गव ने बताया कि हाइड्रोपोनिक तकनीक को जल कृषि कहा जाता है और इसमें मिट्टी का प्रयोग नहीं होता है। इस विधि से तैयार होने वाले पौधों में जमीन संबंधी बीमारियां जैसे कवक, जीवाणु, विषाणु व निमेटोड आदि नहीं लगते हैं।

परंपरागत खेती की तुलना में खरपतवारनाशकों व कीटनाशकों की भी जरूरत नहीं होती है। इस व्यवस्था में पौधे की जड़ों को पानी में रखा जाता है और इसके पौधे के लिए जो पोषक तत्व जरूरी होते हैं, उन्हें पानी के जरिये ही दिया जाता है। इस विधि से तैयार पौधे आम पौधों की तुलना में जल्द तैयार हो जाते हैं और किसान इससे वर्ष में एक-दो बार फसल ले सकते हैं। इस विधि में प्रकाश, आद्रता और तापमान को नियंत्रित किया जा सकता है। आइएचबीटी में लिलियम के पौधे इस विधि से तैयार किए जा रहे हैं।

इस तकनीक में पौधे की जड़ें हवा में ही रहती हैं और हर पांच मिनट के बाद कंप्यूटराइज्ड सिस्टम से पानी की बौछार इसमें की जाती है। इस पानी में पौधों को मिलने वाले सभी पोषक तत्व होते हैं। आइएचबीटी में केसर और औषधीय पौधे कुटकी

हिमाचल के पर्वतीय क्षेत्रों में जमीन की कमी है और वहां के लिए हाइड्रोपोनिक तकनीक से खेती रोजगार पैदा करने वाली हो सकती है। पर्वतीय कृषक इस तकनीक को अपनाकर खेती से कम समय में अधिक पैदावार ले सकते हैं। हिमालय में पाई जाने वाले औषधीय पौधे जो कि विलुप्त होने की कगार पर हैं, उन्हें संस्थान के वैज्ञानिक इस तकनीक से संरक्षित कर रहे हैं। - डॉ. संजय कुमार, निदेशक, आइएचबीटी, पालमपुर

पर इस विधि से काम किया जा रहा है। वैज्ञानिकों के अनुसार, औषधीय पौधों में इनकी जड़ें व तना महत्वपूर्ण होता है, इसलिए इन पर विशेष ध्यान दिया जाता है। डॉ. भार्गव ने बताया कि इस तकनीक से तैयार होने वाले पौधे जल्द बड़े होते हैं।

क्या है लिलियम : हाइड्रोपोनिक तकनीक से तैयार हो रहा लिलियम एक प्रकार का फूल है। डॉ. भार्गव के अनुसार, इस तकनीक से इस पौधे की फसल 120 दिन में तैयार हो जाती है। इससे किसान वर्ष में दो से तीन बार फसल प्राप्त कर सकते हैं। इस पौधे की एक कली बाजार में 40 से 50 रु. में विक्रती है।

विलुप्त पौधों को दोबारा तैयार कर रहा आइएचबीटी पालमपुर। केसर, लिलियम व कुटकी पर हो रहा शोध

आइएचबीटी में एरोपोनिक तकनीक से तैयार किए जा रहे पौधे



आइएचबीटी में हाइड्रोपोनिक तकनीक से तैयार किए जा रहे लिलियम के पौधे।

Published in:

Dainik Jagran, Page no. 14

France, India bet big on drug discovery

CSIR-IICT

5th June 2017



A research centre on the IICT premises in Hyderabad. File photo NAGARA GOPAL

IICT and French institute expand ties in research on chemical technology and medicinal chemistry

France and India are expanding their partnership in areas of research pertaining to chemical technology and medicinal chemistry, scientists from both countries announced here on Monday. The collaboration between Indian Institute of Chemical Technology (IICT) and the Institute for Chemical Sciences in Rennes is about a decade old, but scientists are only now forging

ahead in areas of research pertaining to medicine and drug development from natural products. Scientists informed that cancer and disorders of the central nervous system, chiefly Alzheimer's, are on top of the list.

“The collaboration has been highly fruitful as far as research in CNS disorders goes. Both natural and man-made compounds are being screened in France,” said S. Chandrasekhar, Director, IICT. Besides witnessing academic exchange by way of student and scientist exchange programmes between the countries, the cooperation rides heavily on the molecular bank that IICT boasts. The country's one-of-its-kind facility, the bank has over 40,000 molecules, which are not catalogued. One of the many promising compounds that the collaboration hopes will reach the market has shown potential for nerve cell growth. Experiments have shown successes in zebra fish and mice studies. Further work is underway to determine exactly how the compound works.

“Before we can go ahead with primate and clinical studies, we have to understand how the compound brings about its effect. This is underway in France,” said Prof. Rene Gree, of University of Rennes, who has been visiting IICT as part of collaborative efforts for nearly 20 years. Of increasing interest to both Indian and French scientists is potential of lichens as a source of molecules that can lead to novel drugs. While Indian scientists many decades ago had built a significant collection, the practise lost charm over the years said Dr. Chandrasekhar.

Changing scope

“It is with the help of French that in the last three years, there has been an increased interest in collection and their screening,” he added.

The collaboration’s base at IICT, the Indo-French Joint Laboratory for Sustainable Chemistry at Interfaces, is expected to be rechristened later this year to reflect the changing scope of the collaboration. Meanwhile, it continues to see many French students visit the city for exchange programmes.

Published in:

[The Hindu](#)

Microwave disinfection system gets toxicology institute's attention

CSIR-IITR

5th June 2017



Researchers to test the system that can help tackle hospital-borne infections caused by medical waste

In an effort to bring down instances of hospital acquired infections, scientists are exploring more effective ways to treat biomedical waste. The Council of Scientific and Industrial Research's Indian Institute of Toxicology Research (CSIR-IITR) is testing OptiMaser, a microwave medical waste disinfection system (MMDS) to replace conventional autoclave. The MMDS provides an extraordinarily high level of disinfection with an action of moist heat and steam generated by microwave energy through internal molecular heating.

The indigenous technology developed by the Society for Applied Microwave Electronic Engineering and Research (SAMEER), a scientific society of Department of Electronics and Information Technology (DEITY), is based on alternate, non-burn, green technology without discharge of harmful gases and effluents. It does not require any chemical for treatment of waste and requires very low quantities of water and energy. The CSIR has constituted a panel named as the Microwave-assisted Clinical Group to test the technology's clinical applications on metal items, plastic tubing, blood bag disinfection and operation theatre linen sterilisation. The group will be headed by Dr Rishi Shanker, Professor at Institute of Life Sciences, Ahmedabad University and former Chief Scientist, CSIR IITR. The panel will also study and finalise the number of cycles needed for various clinical items. This will be the first time world over the OptiMaser microwave technology will be

implemented to treat biomedical waste, CSIR officials claimed. The technology has the potential to be deployed at all public health centres and hospitals, officials said. “The product when fully developed could entirely disrupt the existing technology of Autoclave. OptiMaser consumes one-tenth the power with zero emission. Tests by the CSIR team will begin in July. Ethical validation from leading institutes in India, Singapore and Europe will be sought too,” said Dr Alok Dhawan, Director, IITR. OptiMaser is a government-approved technology in compliance with the latest Bio Medical Waste Management Rules 2016. The new rules make it mandatory to treat highly infectious laboratory waste, blood bags etc at source before final disposal.

Scope of MMDS

Infectious wards of the hospital

Dialysis rooms,

ICUs, and Ots

Wards with HIV-infected patients and TB patients

AIDS and contagious diseases wards

OPDs / Japanese Encephalitis wards

Published in:

[DNA](#)

France, India bet big on drug discovery

CSIR-IMMT

5th June 2017



Areas of collaboration include metal recovery from chromite, fly ash generated at company sites

Make in India: Jindal Stainless (Hisar) forays into defence
Jindal Stainless (Hisar) says sector needs help on imports
Jindal Stainless might complete de-merger by March end
Adani Power, Jindal Stainless, Vadilal Industries hit 52-week highs
Organic farming matters: The good, bad and consumer benefits explained

The country's largest stainless steel maker Jindal Stainless Ltd (JSL) entered

into a pact with CSIR-Institute of Minerals and Materials Technology (IMMT) on Monday for joint research and development for sharing resource management, environmental sustainability, better productivity and viability. The MoU was signed between S K Mishra, director of IMMT and Mohan Lal, unit head of JSL's Jajpur operations in the presence of the other senior officials of the two organisations.

The areas of collaboration are recovery of metals from chromite overburden, fly ash generated at sites of the company, characterisation of organic compounds, characterisation of scale formation in re-heating furnace, agglomeration of chrome ore alternative to briquetting and enhancement of commercial use of steam coal.

"To support the mission of Jindal Stainless in becoming a leading stainless company in the world, the research and development should aim for innovative and high quality

solutions for stainless steel endeavours JSL and CSIR-IMMT shall partner to laying such long term vision to reality," stated an official statement.

It will have short-term problem solving, medium-term technology innovation in stainless steel production and long term partnership in making stainless steel a metal of choice, it added.

Published in:
businessstandard.com

Thermoplastic striping on ORR to curb mishaps

CSIR-CRRI

5th June 2017



Central Road Research Institute recommends the measure after analysing the data of accidents on ORR

Hyderabad: The Central Road Research Institute (CRRI) has recommended that thermoplastic paint in white colour with glass beads be used to reduce the number of accidents on the Outer Ring Road (ORR). The CRRI recommendations came after Hyderabad Metropolitan Development Authority (HMDA) sent data to CRRI for analysis. As per the report, the major reason for accidents is high speed and as per the data available till date on the accidents on ORR,

the most accident prone area is near Leonia resort on the Shameerpet to Keesara stretch. Recorded speed limits touched 180-200 kmph on the stretch. The HMDA has earmarked 40 locations where thermoplastic paint would be used. Speaking to The Hans India, B Anand Mohan, Chief General Manager, ORR said, “8 mm thick white paint consisting of 12 to 13 stripes would be painted across the road and when vehicles touch down on them there would be a jerk which would act as an alert and they would automatically slow down. These would be painted just before a curve.” The cost is Rs 700 per sq metre and the contractors have been already told to start work. Another finding of the report is that the number of accidents both at night as well as daytime is almost same. In 2016, there were 389 accidents during night-time and 435 accidents during daytime. In 2017, till the month of April, there were 140 accidents during daytime and 124 during the night. As many 22 lost their lives this year.

HMDA officials attribute high speed as one of the major reasons for accidents. Another measure being taken is to replace the 120 kmph speed limit boards on ORR with 100 kmph and the boards in some locations have already been replaced.

Some boards in Shameerpet to Keesara and Gachibowli to Shamshabad have already been replaced, said an official. A fortnight ago, data of the last few years of accidents had been given to NIT Warangal for analysis for the reasons for accidents.

Officials said that this exercise would help them take steps to reduce the number of accidents. If all the recommendations of the CRRI report are to be implemented, it would cost Rs 40 Crore

Published in:
thehansindia.com

NEERI celebrates World Environment Day, signs MOU with VIA

CSIR-NEERI

5th June 2017

Nagpur: Municipal commissioner Ashwin Mudgal assured that Nagpur Municipal Corporation (NMC) would take necessary steps to address the problems of sewage treatment and solid waste management in the city. Mudgal was speaking on the occasion of World Environment Day at the CSIR- National Environmental Engineering Research Institute (NEERI) on Monday. Sticking to the day's theme for this year — 'Connecting public with nature', Neeri launched a waste segregation campaign in slum areas to create awareness. Neeri officials distributed free dustbins in slums of Ajni and explained the dwellers about segregation of wet and dry waste.

The institute also signed a memorandum of understanding (MoU) with Vidarbha Industries Association (VIA). "CSIR-NEERI will function as a help-desk centre for the industries of Nagpur region. We will provide them support and technical guidance in ensuring environment protection and curbing industrial pollution," Neeri's spokesperson said. A panel discussion on role of citizens in urban environment management was also organized. Talking about people's role in environment protection, SP Gautam, member of Madhya Pradesh Public Service Commission and former chairman of Central Pollution Control Board (CPCB) said, "It is necessary to maintain an ecological balance. Spiritual books are the best medium for acquiring knowledge regarding conservation of nature. This knowledge with practical experience turns into science." To encourage use of fuel-less transport, employees of Neeri had organized a cycle rally on Monday morning. A debate competition on 'Free food and power — is this really a sustainable option?' was also organized.

Published in:

Economicstimes.indiatimes.com

Bhutanese team at biotech institute

CSIR-IHBT

5th June 2017

Palampur: A delegation of the Ministry of Agriculture from Bhutan visited the Institute of Himalayan Bio Technology (IHBT) here to gather know-how on agro technologies. Dr Sanjay Kumar, Director, IHBT, said, "Since climate and topography of Palampur and Bhutan are quite similar, technologies developed here can be implemented in Bhutan for improving the livelihood of the farmers." The team was given information on tea garden management practices, cultivation and post-harvest management of medicinal and aromatic crops, particularly extraction procedure of bioactive compounds. OC

Published in:
Tribuneindia.com

CSIR-CBRI

27th May 2017

बगास से कागज बनाएं, पेड़ बचाएं : डा. जोशी

■ सहारा न्यूज ब्यूरो

रुड़की।

केंद्रीय भवन अनुसंधान संस्थान में आयोजित विश्व पर्यावरण दिवस समारोह में मुख्य वक्ता हल्द्वानी स्थित उत्तराखंड वन अकादमी के निदेशक डा. कपिल कुमार जोशी ने एनर्जी कंजरवेशन थ्रू बायोमॉस ब्रिकेटिंग विषय पर व्याख्यान में कहा कि पेपर मिलों में गन्ने की बगास व अन्य उपयोगी लकड़ी को प्रयोग कर वन संसाधनों का संरक्षण करना संभव है। उन्होंने कहा कि आज जितनी उपयोगी लकड़ी पेपर मिलों में प्रयुक्त की जा रही है, उसे बचाने की जरूरत है। यह काम बगास व अन्य बायोमॉस को पेपर बनाने में प्रयोग करके किया जाना चाहिए।

डा. जोशी ने उत्तराखंड में चीड़ की पत्तियों से हर साल करोड़ों की वन संपदा राख होने, पर्यावरणीय वनस्पतियों व वन्य जीवों के प्राकृतिक आवास नष्ट होने की घटनाओं पर प्रकाश डालते हुए कहा कि उनके संस्थान ने पिरूल को एकत्रित कर उनसे घरेलू ईंधन बनाने की तकनीक विकसित की गई है। उन्होंने कहा कि पिरूल जंगलों का सबसे बड़ा दुश्मन बना हुआ है। इसका ईंधन बनाने के प्रयास सिरे चढ़ रहे हैं। निदेशक प्रो. एन गोपाल कृष्णन की अध्यक्षता में आयोजित कार्यक्रम में विशिष्ट अतिथि अध्यक्ष टाउन प्लानर्स संस्थान के



पर्यावरण दिवस कार्यक्रम में मंचासीन हल्द्वानी वन अकादमी के निदेशक डा. कपिल जोशी, निदेशक सीबीआरआई व अन्य वैज्ञानिक।

सीबीआरआई में पर्यावरण दिवस समारोह पिरूल से ईंधन बनाने की तकनीक विकसित की पेपर मिलों में प्रयुक्त की जा रही

अध्यक्ष प्रो. राजेश चंद्रा ने बढ़ती आबादी की जरूरतों को पूरा करने के लिए वर्टिकल भवन निर्माण पर बल दिया। उन्होंने शहरों पर आबादी के दबाव को कम करने के लिए गांवों व कस्बों में नियोजित विकास को प्राथमिकता देने की सलाह दी। संस्थान निदेशक डा. गोपाल कृष्णन ने पर्यावरण ह्रास की

मौजूदा स्थिति पर चिंता जताई। उन्होंने कहा कि संयुक्त राष्ट्र समेत दुनिया के अधिकांश देश पर्यावरण और जलवायु परिवर्तन की बढ़ती गति पर चिंतित हैं। यह चिंता हर नागरिक की होनी चाहिए। इंस्टीट्यूशन आफ इंजीनियर्स रुड़की लोकल चेप्टर के सहयोग से आयोजित कार्यक्रम में अध्यक्ष इंजीनियर मलविंदर सिंह ने पर्यावरण दिवस की थीम के अनुरूप सभी को प्रकृति से जुड़ने का आह्वान किया। उन्होंने भूमि, पर्यावरण सुरक्षा जल संरक्षण व इसके पुनर्प्रयोग, पुनर्नवीनीकरण, व धारणीयता को लेकर शपथ दिलाई। वैज्ञानिक डा.

एके मिनोचा के संचालन में आयोजित कार्यक्रम में संस्थान के वैज्ञानिक डा. अजय चौरासिया व उनके सहयोगियों द्वारा लिखित पुस्तक निर्माण प्रौद्योगिकी का विमोचन किया गया। कार्यक्रम के पहले अतिथियों ने पौधारोपण किया। इस अवसर पर डा. अचल कुमार मित्तल व आईआईटी के प्रो. विकास मोहंती और पूर्व सहायक निदेशक डा. एनके शंगारी ने विचार व्यक्त किए। सभागार में पूर्व कार्यकारी निदेशक वाई पांडेय, डा. वीरजय श्री, अंजुलि गर्ग, अनिल कुमार लोहानी, डा. संजय गर्ग, डा. अतुल अग्रवाल, भीमसेन गुप्ता, एसके नेगी व प्रो. गोपाल रंजन समेत तमाम वैज्ञानिक एवं कर्मचारी मौजूद रहे।

Published in:

Rastriya Sahara, Page no. 4