

CSIR in Media



75 Years of

CSIR Touching Lives

News Bulletin

1st to 10th November 2018



Four Delhi flyovers set for repair next year

CSIR-CRRI

10th November, 2018

The four are the Lodhi Road flyover on Lala Lajpat Rai Road, the Oberoi flyover on Zakir Hussain Marg, the Chirag Dilli flyover on Outer Ring Road, and the ISBT Kashmere Gate flyover.



ISBT Kashmere Gate and Chirag Dilli flyovers witness about 250,000-300,000 vehicles a day, traffic police data reveals. About 150,000-200,000 vehicles use Lodhi Road and Oberoi flyovers daily. (HT File Photo)

The Delhi government's Public Works Department (PWD) will early next year start repair work on four of the city's busiest flyovers — three in south Delhi and one in North Delhi — that were constructed for the 1982 Asian Games or in the early 1990s after an initial study found they had developed cracks and needed immediate work. The four are the Lodhi Road flyover on Lala Lajpat

Rai Road, the Oberoi flyover on Zakir Hussain Marg, the Chirag Dilli flyover on Outer Ring Road, and the ISBT Kashmere Gate flyover. PWD officials say these flyovers will be repaired on a priority basis because traffic volume is high on the arterial roads they connect. ISBT Kashmere Gate and Chirag Dilli flyovers witness about 250,000-300,000 vehicles a day, traffic police data reveals. About 150,000-200,000 vehicles use Lodhi Road and Oberoi flyovers daily. The Lodhi Road and Oberoi flyovers were constructed for the Asian Games held in Delhi in 1982, while the ones at ISBT Kashmere Gate and Chirag Dilli were constructed in 1991 and 1992 respectively. Earlier this year, the department hired Council of Scientific and Industrial Research-Central Road Research Institute (CSIR-CRRI) to inspect the condition of eight flyovers in Delhi, which

were constructed in the 1980s and 1990s. “We identified these four flyovers based on the visual inspection report submitted by CSIR-CRRI. These flyovers are very old and need immediate repair. We have appointed consultants to do a detailed study on the condition of the four flyovers,” said a senior PWD official familiar with the plan who asked not to be identified. “The consultant will examine the quality of concrete, check for rusting in reinforcement material (iron bars in the base), strength of the structure, width of cracks etc. The expansion joints will have to be replaced,” said the official.

CSIR-CRRI’s bridge and structures division carried out the visual inspection of these flyovers and submitted its report in June 2018. “In our report, we pointed out that these flyovers, which are very old, have developed cracks and recommended that PWD get non-destructive testing and a detailed study done on the condition of these flyovers and accordingly plan for their rehabilitation,” said GK Sahoo, head of bridges and structures at CSIR-CRRI.

PWD officials say that the consultants will first do an inspection of these flyovers and then carry out tests to assess the strength and condition of the structures. “We have asked them to prepare the reports in three months’ time. Based on the report, we will plan the rehabilitation work. The repair work will start next year,” added the PWD official cited in the first instance. There are 86 flyovers on PWD roads across Delhi, of which 11 were constructed in the 1980s and the ’90s. After problems were reported in the Lajpat Nagar flyover last year, PWD made visual inspection of several flyovers.

While repair work on several flyovers such as Akshardham, Lajpat Nagar, Meera Bagh and Defence Colony have been completed, the department is in the process of repairing other flyovers. In East Delhi; it has started repair work on the Shreshtha Vihar flyover and will soon start the work on Nand Nagri flyover. HT recently reported cracks in the Nehru Nagar rail Road Over Bridge (ROB), which is nearly 50 years old, near Ashram in south Delhi. Delhi PWD is in the process of preparing estimates for its repair.

According to PWD officials, the repair of Nehru Nagar ROB will cost close to ₹15 crore and will start early next year. Road safety and transport planning experts stress the need for regular maintenance of road infrastructure in the city. “These flyovers are located on arterial roads with high vehicular load. Chirag Dilli and Kashmere Gate are used by heavy vehicles, as these are located on the Outer Ring Road. The government should devise a plan for regular maintenance of flyovers. While new flyovers are being constructed in the city, it is important to repair and rehabilitate old ones as structural defects can lead to failure of the structure,” said Sewa Ram, professor of transport planning at the School of Planning and Architecture.

Published in:
[Hindustan Times](#)

CIMAP signs pact with RIFM to standardize fragrant oils

CSIR-CIMAP

9th November, 2018

The Central Institute of Medicinal and Aromatic Plants (CIMAP) on Friday signed an agreement with US-based Research Institute for Fragrant Materials (RIFM) for improving the quality of fragrant oils, a spokesman of the institute said.

The pact was signed by Anil Kumar Tripathi, Director CSIR-CIMAP and Jim Romane, President of the RIFM at the conclusion of the two-day annual conference of the International Fragrance Association in Paris.

Since the RIFM internationally standardizes the quality of fragrant materials, it will give a big boost to the fragrance quality in India, spokesman Manoj Semwal said.

"The pact will go a long way in standardizing the fragrant material produced in India and bring it to an international level," he told IANS while adding that the CSIR, under the "aroma mission" was aiming to enhance production of fragrant materials.

To increase the acceptability and demand of Indian fragrances on a global level, a team of the RIFM had visited the Lucknow headquarter of CIMAP earlier in 2018. The deliberations during the visit resulted in the signing of the MoU.

Published in:

[Business Standard](#)

हिमाचल में अब हर औषधीय पौधे का होगा डीएनए पहली बार शुद्धता जांचने के लिए जैव प्रौद्योगिकी संस्थान पालमपुर ने शुरू किया प्रोजेक्ट

■ दीपिका शर्मा, शिमला

अब हिमाचल भी यह जांच पाएगा कि मेडिसिन प्लांट सौ फीसदी असली है या नकली। हिमाचल जैव एवं प्रौद्योगिकी संस्थान पालमपुर ने एक अहम प्रोजेक्ट को शुरू किया गया है, जिसमें हर मेडिसिन प्लांट का डीएनए टेस्ट किया जाएगा। यानी प्लांट की वंशावली को लेकर इतनी गहनता से जांच की जाएगी, जिसके बारे में पहले आयुर्वेद विभाग की इकलौती जोगिंद्रनगर लैब भी सौ फीसदी शुद्धता का पता नहीं लग पाती थी। लिहाजा इन सभी प्लांट्स का टेस्ट कर इसकी बारकोडिंग होगी।

बारकोडिंग कर प्लांट को लेकर एक ऐसा लेबल तैयार किया जाएगा, जिससे प्लांट के सभी वंशों के बारे में यह पता चल जाएगा कि औषधीय पौधा कितना शुद्ध है।

बहरहाल यदि कोई भी प्लांट से संबंधित वस्तु प्रदेश के बाजार में बेचेगा तो उसकी शुद्धता का पता आसानी से चल जाएगा। इस प्रोजेक्ट के बारे में आयुर्वेद विभाग को भी पेश किया जाने वाला है। गौर हो कि अब नेशनल मेडिसिन प्लांट बोर्ड भी सभी राज्यों को निर्देश दे चुका है कि औषधीय शुद्धता को लेकर प्लांट्स की जांच को बारीकी से तय किया जाए।



क्या है डीएनए

प्रदेश में कई ऐसी दवाएं बन रही हैं, जिसकी शुद्धता का पता आयुर्वेद लैब भी नहीं लगा पाती है। ऐसा इसलिए, क्योंकि कई औषधीय पौधों के कई वंश होते हैं, जिसे लोगों को बता कर जनता को ठगा जाता है। अब डीएनए से पता चल जाएगा कि पौधा असली है या नकली।

अब तक साठ पौधों की हुई जांच

हिमाचल जैव एवं प्रौद्योगिकी संस्थान अभी तक साठ औषधीय पौधों की जांच कर चुका है, जिसकी बारकोडिंग की जा रही है। अभी 50 पौधों की लिस्ट भी तैयार की जा रही है। इसकी डीएनए टेस्ट पर काम किया जा रहा है।

मेडिकल स्टूडेंट भी परखेंगे

विशेषज्ञों का मानना है कि हालांकि जैव संस्थान द्वारा ही मेडिसिन प्लांट के डीएनए किया जा रहा है, लेकिन संस्थान का मानना है कि मेडिकोज भी इस टेस्ट को कर पाएंगे, जिसकी ट्रेनिंग छात्रों को दी जाएगी।

“ प्रदेश में अभी आयुर्वेद क्षेत्र में मेडिसिन प्लांट का डीएनए नहीं होता है। अब ऐसा कदम उठाया जा रहा है, जो हिमाचल की बड़ी पहल है।
डा. दिनेश, आयुर्वेद विशेषज्ञ

“ प्रदेश में पहली बार मेडिसिन प्लांट की डीएनए जांच की जा रही है, जिससे पौधों की शुद्धता का सौ फीसदी पता चल पाएगा। संस्थान ने इस पर काम करना शुरू कर दिया है।
डा. संजय, निदेशक, हिमाचल जैव एवं प्रौद्योगिकी संस्थान

Next big Himalayan earthquake: Doon Valley watch out

IANS|

Nov 08, 2018, 01.16 PM IST



The Garhwal-Kumaon segment of the northwest (NW) Himalayas is seismically the "most vulnerable section" of the region with a potential to generate great earthquakes.

Bengaluru: The Garhwal-Kumaon segment of the northwest (NW) Himalayas is seismically the "most vulnerable section" of the region with a potential to generate great earthquakes, warns a new study by researchers from multiple institutions in India.

Their findings, reported in the journal "Earth and Planetary Science Letters", is based on analysis of five years (2013-2018) of continuous GPS measurements from 28 stations located in the Garhwal-Kumaon Himalayas and the adjoining Indo-Gangeti plains.

Lifted by the subduction of the Indian tectonic plate under the Eurasian Plate, the Himalayan mountain range runs in an arc, about 2,400-km long, separating the plains of the Indian subcontinent from the Tibetan Plateau.

Partly in India and partly in western Nepal, the NW Himalayas have not experienced a great earthquake since at least 1505, Vineet Gahalaut director of the National Centre for Seismology in New Delhi and c ..

An analysis of GPS measurements of crustal deformation suggests "strong seismic coupling" underneath Garhwal-Kumaon region, he said. Strong inter-plate coupling means the fault below Garhwal-Kumaon segment is "locked" and capable of accumulating stress. The width of the coupled region, according to the report, is estimated to be about 85 km.

This strongly-coupled region must have accumulated a "slip" of more than 7 meters since the last earthquake in 1505 "which is enough to produce a great earthquake in the region", the researchers claim. Slip is the relative displacement of formerly adjacent points on opposite sides of a fault.

According to their report, GPS measurements found the convergence rate in this part of the Himalayas is about 18 millimeters per year which has continued for more than 500 years -- making this slice of the geological fault "one of the most earthquake-vulnerable segments of the Himalayan arc."

The network of GPS sites in the Garhwal Himalayas, the densest anywhere along the Himalayan arc, "provides the most reliable estimate of spatial variations of site velocities in the Himalayas," the authors say.

"The derived coupling map from GPS measurements has implications for seismic hazard in the Garhwal-Kumaon region," says the report, adding that the regions of high-coupling would be the regions of high seismic energy release during future earthquakes.

"Taking the analogy from the 2015 Gorkha earthquake and 1985 Mexico earthquake, the sediment filled valleys, such as the Dehradun valley in the Garhwal region, are expected to be the regions of potentially more damage in future events."

This has serious implications in terms of seismic hazards, the report says, "as the population density is higher in the frontal Himalayas and its contiguous Indo-Gangetic plains, thus exposing more people to high, near-field ground shaking."

Besides this, the unconsolidated sediments in the Indo-Gangetic plains can cause more structural damage during earthquakes and also liquefaction -- wherein saturated soil behaves more like a liquid than a solid -- as happened in the 1934 Nepal-Bihar earthquake, says the report.

Besides Gahalaut, the study team included scientists from Institute of Seismological Research, Gandhinagar; National Geophysical Research Institute, Hyderabad; V.C.S.G. Uttarakhand University of Horticulture and Forestry, Pauri; Wadia Institute of Himalayan Geology, Dehradun and G.B. Pant National Institute of Himalayan Environment & Sustainable Development, Almora.

Chittenipattu Puthenveetil Rajendran, seismologist at the Indian Institute of Science in Bengaluru, says the study "reiterates an earlier premise that the central Himalaya is strongly coupled and is waiting to break in a great earthquake anytime sooner".

The Garhwal-Kumaon segment of the Himalayan arc (including parts of Nepal and India) never had a great earthquake during the last 600-700 years, Rajendran told this correspondent. "That means more than 20 meters of seismic slip is accumulated over these years, which can be released only by one or more great earthquakes ($M_w > 8.5$) in the region .

"This poses a serious hazard for the Himalayan region and the heavily-populated adjacent Gangetic alluvial plains -- not seriously considered by the government," Rajendran noted.

Published in:
[Economics Times](#)

सीरी ने बनाए ग्रीन क्रैकर्स, अगली दिवाली तक आएंगे

बैटरी ऑपरेटेड होंगे पटाखे, कर सकेंगे 'साउंड' कंट्रोल

पॉल्यूशन कम करने वाले
इंडियन क्रैकर्स हुए इजाद

पत्रिका **PLUS** रिपोर्टर

जयपुर • वैसा हो यदि पटाखे सेफ, पॉल्यूशन फ्री हों और उनका रोमांच भी बना रहे। जी हां, अगली दिवाली तक संभवतया ऐसा ही होगा। सेंट्रल इलेक्ट्रॉनिक्स इंजीनियरिंग रिसर्च इंस्टीट्यूट (सीरी) पिलानी की ग्रीन क्रैकर्स को लेकर की गई रिसर्च ये सपना साकार करेगी। सीरी ने बैटरी ऑपरेटेड पटाखे इजाद किए हैं। जिनसे जीरो पॉल्यूशन होगा। इसके अलावा साउंड का लेवल कम या ज्यादा भी किया जा सकेगा। ये पटाखे मौजूदा क्रैकर्स से थोड़े अलग होंगे।

सीरी के साइंटिस्ट अंकुश जैन का कहना है कि केन्द्रीय मंत्री डॉ. हर्षवर्धन ने छह महीने पहले हमें चैलेंज किया था कि क्या साइंस के क्षेत्र में काम कर रहे अग्रणी संस्थान पॉल्यूशन कम करने वाले इंडियन क्रैकर्स इजाद कर सकते हैं। हमने उसी दिन से इसे मिशन की तरह लिया और छह महीने में इलेक्ट्रॉनिक क्रैकर्स तैयार कर दिखाए। ई क्रैकर्स में डिफरेंट वैरियटीज होंगी। फिलहाल तीन तरीके के क्रैकर्स

चाइनीज से सस्ता

अंकुश के मुताबिक, दिल्ली के मार्केट में चाइनीज इलेक्ट्रॉनिक पटाखों ने दस्तक दे दी है, लेकिन ये उतने इफेक्टिव नहीं हैं। ये स्विच में लगाए जाने के बाद बार-बार आवाज करते हैं, लेकिन हमारे पटाखे काफी अलग और रोमांच से भरपूर हैं। जहां चाइनीज पटाखे 1500 रुपए तक में अवेलेबल हैं। वहीं हमारी लैब में ही इसकी कॉस्ट एक हजार रुपए तक है, यदि इंडस्ट्री लार्ज स्केल पर इसका प्रोडक्शन करती है तो हर पटाखे की कॉस्ट 300 से 400 ही रह जाएगी। हम इंडस्ट्री के इनिशिएटिव का ही इंतजार कर रहे हैं। सीरी



जयपुर केन्द्र के वैज्ञानिक डॉ. राम प्रकाश ने बताया कि इन पटाखों को मार्केट तक लाने के लिए अगली दिवाली तक का टारगेट रखा गया है।

बनाए हैं। इसमें ई-लड़ी, ई अनार और ई चकरी बनाए गए हैं। इसकी खासियत यह है कि ये सालोंसाल चलेंगे। साथ ही ऑरिजनल पटाखों को चलाने का फील भी कमजोर नहीं होगा, क्योंकि हमने इसमें थर्मल सिमुलेशन भी इंट्रोड्यूस किया है। जिससे इन पटाखों के पास में मोमबत्ती या

कोई फुलझड़ी लेकर जाने पर ये जल उठेंगे। इन्हें इस तरह डिजाइन किया है कि इसमें लगे एलईडी मौजूदा पटाखों जैसा ही रोमांच पैदा करेंगे। इसके लिए ऑप्टिकल फाइबर के साथ एलईडीज की प्रोग्रामिंग की गई है। जिससे यह इफेक्ट जनरेट होगा।

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Engineering students get exposures of research environment at NML

CSIR-NML



A batch of 40 students B. Tech, III year, Metallurgical and Materials Engineering from Govt. College of Engineering, Keonjhar accompanied by two teachers Ranjan Kumar Mohanta and Sandhya Rani Rana visited CSIR-National Metallurgical Laboratory, Jamshedpur and interacted with scientists and research scholars this morning under the aegis of CSIR-NML School Interactive programme. The students were thrilled to visit the laboratory and interact with the working group. The programme was scheduled for 6 hours, which comprise CSIR & NML, Documentary film show and Laboratory visit. Dr. P.N. Mishra, Principal Scientist,

7th November, 2018

welcomed the students and teachers and briefed about the programme, discussed an overview of CSIR and NML, its contributions in different branches of Science & Technology and defined science, science & technology, development of science & technology in Indian perspectives, also explains about natural resources like ores, minerals, rocks and its value for the development of our Nation. Further a lab. visits programme was organized to get exposure of R&D environment. Mr. Ranjan Kumar has helped students to lab. visit. Students visited creep testing units of MTE Division and knew about fatigue, creep, fractures prevailing in different types of industrial components. Students got exposure of different machine like Servo Hydro Testing Machine, Servo Electrical Machine and Furnace. The other area was Hot Dip Processing Simulation units and further practically observed the characterization of different materials under Optical Microscope. Students were thrilled to have practical view

of XRD and SEM. Biraj Kumar Sahoo, Scientist and Manish Soni nicely explained the R&D activities associated with this unit. The students were also visited the Mechanical Testing unit. This unit has provided opportunity for practical demonstration of Rolling, Forging and Wire Drawing. Dr. M.M. Humane, Senior Principal Scientist interacted and discussed about the necessity and role of this unit in carrying out the R&D work in the area of Steel. Students asked number of questions and got satisfactory answers.

Students further visited to the E-waste unit. Ms. Rekha Panda has explained the different process and activities pertains to extraction of valuable metals from electronic appliance with experimented samples. Students got excited to pursue research in e-waste area and they have asked questions and further sorted out. Students were surprised to observe the 68 years' history of NML at museum and they asked different question based on sample and poster pertaining to minerals based product and facilities.

During the interactive session, number of students asked different questions on minerals, ores, origin of coal, the evolutionary history behind the formation of metal, metals forging, rolling, and heat treatment etc. Teachers and students requested for their next visit to the laboratory to gain deeper knowledge. Teachers expressed their view and was satisfied to know about the consistent effort and research emphasis in various sectors for the ultimate development of India. At last, teachers acknowledged and extend thanks to CSIR-NML authorities for providing opportunity to visit NML and observe various facilities.

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[Avenue Mail](#)

Trg in mushroom cultivation imparted

CSIR-NEIST

7th November, 2018

Twenty-two mushroom farmers from Naharlagun, Doimukh and Sepa under the banner of NGO Empowerment of Needy participated in a training programme on cultivation of mushroom and production of vermicompost, organised by the Itanagar branch of the CSIR – North East Institute of Science & Technology (CSIR-NEIST) at G Sector here on Tuesday. The CSIR-NEIST branch has extensive facility for imparting training in mushroom cultivation technology.

The institute's senior technical officer, Dr Budhen Ch Baruah highlighted the prospects of mushroom cultivation for self-sustenance and economic benefit. "Edible mushroom is also a very good source of Vitamin D," he informed, and advised the farmers to cultivate known varieties of mushroom available at the NEIST branch.

A demonstration on preparing mushroom bags was presented during the programme. Dr Baruah also highlighted the hazardous effects of using inorganic fertilizers and pesticides for food-yielding crops, and stressed on the use of vermicompost. The participants were later taken to the low-cost mushroom and vermicompost production units at the NEIST campus.

Published in:

[The Arunachal Times](#)

Climate change causing ground surface warming in India

CSIR-NGRI

6th November, 2018

A recent NASA report has found that 17 of 18 warmest years in 136-year-record have occurred since 2001 and 2016 was ranked as the warmest on record.

NEW DELHI: It is common knowledge that climate change has had an impact on the Himalayas and the oceans in India, and now a study by scientists from the Ministry of Earth Sciences have found evidence of ground surface warming in peninsular India over the decades.

Analysis of borehole temperature provides information about regional climate change over a few centuries. Data from 146 borehole sites in the crystalline terrain of peninsular India were used to reconstruct surface ground temperature history.

The great majority of borehole sites that extend down to 200 metres and 300 metres in depth revealed rise in core temperature. Depths of the boreholes ranged from 150 to 1,522 metres. "Overall, 88 per cent of boreholes indicate predominant ground surface warming in peninsular India during the past three centuries," found the study. Peninsular India consists of states in Southern India and east India.

"The profiles show temperature anomalies in the top few hundred metres that is consistent with changing surface temperature over the past two-three centuries," it further said.

Analysis of individual profiles for change in temperature reveals predominant surface ground warming in peninsular India with a mean change of nearly 1 degree Celsius for 129 years.

The study has been jointly done by Borehole Geophysics Research Laboratory, Karad, CSIR-National Geophysical Research Institute, Hyderabad and Department of Geophysics, IIT (Indian School of Mines).

Published in:

[New Indian Express](#)

CSIR-NML

5th November, 2018

धरती से जान सकेंगे कितने दिन और चलेगा अंतरिक्षयान

जागरण विशेष

विकास श्रीवास्तव • जमशेदपुर

यह देश के अंतरिक्ष कार्यक्रमों के लिए किसी वरदान से कम नहीं होगा। अरबों रुपये की लागत से तैयार होनेवाले अंतरिक्षयान का जहां अंतिम संभावना तक उपयोग हो सकेगा, वहीं इससे करोड़ों रुपये की बचत भी होगी। यह संभव होगा अल्ट्रासाउंड पल्सर-रिसीवर के जरिए। इस यंत्र से धरती के बेस स्टेशन से जान सकेंगे कि अंतरिक्ष में चक्कर लगा रहे यान में कितना ईंधन बचा है। वह और कितने दिनों तक चलेगा। इस तकनीक को विकसित करने का पहला चरण सफलतापूर्वक पूरा हो गया है। भारतीय अंतरिक्ष अनुसंधान संगठन (इसरो)

ऊंची छलांग

- इसरो के प्रोजेक्ट पर एनएमएल में विकसित की जा रही नई तकनीक
- पहला चरण सफल, 2019 तक पूरी तरह विकसित हो जाएगी तकनीक

अभी अनुमानित आयु पर निर्भरता

प्रक्षेपित किए जानेवाले अंतरिक्ष यान की अपनी आयु का निर्धारण अनुमान के आधार पर किया जाता रहा है। आमतौर पर एक अंतरिक्षयान की आयु औसतन 12 वर्ष मानी जाती है। यह अवधि पूरी होने के बाद इसे बेकार मान लिया जाता है।

को अंतरिक्ष परियोजनाओं में यह जिम्मेदारी राष्ट्रीय धातुकर्म प्रयोगशाला (एनएमएल) जमशेदपुर को दी गई है।



प्रक्षेपण के बाद भी उसमें बचे ईंधन की अपडेट जानकारी धरातल से प्राप्त करने के लिए उपकरण तैयार करने का पहला चरण सफलता पूर्वक पूरा कर लिया गया है। इसे 2019 तक पूरा कर लिया जाना है।

- डॉ. शर्मिष्ठा सागर, ग्रुप लीडर, एडवांस मैटेरियल एंड प्रोसेस प्रभाग

लांचिंग के समय ही खत्म हो जाता है 80 प्रतिशत ईंधन

लांचिंग पैड से लांच करने की प्रक्रिया में ही 80 प्रतिशत ईंधन की खपत हो जाती है। केवल 20 प्रतिशत ईंधन के साथ वह अंतरिक्ष में अपनी कक्षा में स्थापित होता है। यह ईंधन यान को उसकी निश्चित कक्षा में बनाए रखने के लिए धरती स्थित बेस स्टेशन से नियंत्रित करने में काम आता है। लेकिन ईंधन बचे रहने की जानकारी होने पर उसका उपयोग अधिकतम दिनों तक किया जा सकता है। इससे करोड़ों रुपये की बचत होगी।

के नेतृत्व में काम कर रही है। वर्ष 2019 तक यह प्रोजेक्ट पूरा हो जाएगा।

क्यों पड़ी जरूरत : अंतरिक्षयान की

अनुमानित 12 वर्ष की आयु पूरी हो जाने के बाद उसे वापस बुला लिया जाता है या वह अंतरिक्ष में ही बेकार होकर रह जाता है, जबकि यह संभावना बनी रहती है कि उसमें कुछ ईंधन बचा हो। यदि अंतरिक्ष में रहने के दौरान इस बात की पक्की जानकारी मिल जाए कि यान में कितना ईंधन बचा है, वह कितने दिन और चलेगा तो उसका उपयोग ज्यादा दिनों तक किया जा सकता है।

इसीलिए इस शोध की जरूरत पड़ी। इसरो ने इसकी जिम्मेदारी एनएमएल को सौंपी। पहला चरण सफलता पूर्वक पूरा होने के बाद इसरो ने एनएमएल को प्रशंसापत्र भी भेजा है। केवल अमेरिका के नासा के पास यह तकनीक है जिससे जाना जा सके कि यान में कितना ईंधन बचा है।

Published in:
Dainik Jagran

CSIR-NIO

5th November, 2018

Indian National Science Academy fellowship for Prof Sunil Kumar Singh

Panaji, Nov 5 (UNI) Professor Sunil Kumar Singh, Director, CSIR - National Institute of Oceanography (NIO), Goa, has been elected as a Fellow of the Indian National Science Academy (INSA), New Delhi.

The INSA is a one of the three scientific bodies in the country. It elects an individual scientist as its Fellow for his/ her outstanding performance and contributions. Professor Singh has been elected for the prestigious fellowship. The fellowship will be effective from 1st January 2019. Professor Singh's present research interests are; Biogeochemistry of Trace Elements and Isotopes (TEIs) in the Indian and Southern Oceans and in the Indian Estuaries; Low temperature elemental and isotope geochemistry; Erosion and weathering studies in the Indian River System; Long-term carbon cycle; Geochronology of carbonaceous shales; Paleo-erosion of the Himalaya: Impact of climate and tectonics; Evolution of atmospheric oxygen and Paleoredox condition of the Proterozoic Oceans using Re-Os and Mo.

Professor Singh has played a highly significant role on studies on low temperature elemental and isotope geochemistry and his researches are reported to have assisted in widening the understanding on the evolution of the Himalayas. His studies have been documented in several peer-reviewed articles; he has over 100 scientific papers to his credit.

He has been honoured with several National Awards and Academy Fellowships including the National Geoscience Award (2012), Fellow of the Indian Academy of Sciences, Eminent Mass spectrometry Award (2014), The Council of Scientific and Industrial Research, the apex agency of the Government of India for scientific research, awarded him the Shanti Swarup Bhatnagar Prize for Science and Technology, one of the highest Indian science awards for his contributions to Earth, Atmosphere, Ocean and Planetary Sciences in 2016, a statement from NIO here said on Monday.

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CSIR

3rd November, 2018

SRM Varsity felicitates Shanti Bhatnagar award winner Venkataratnam

Amaravati, Nov 3 (UNI) SRM University, Amaravati felicitated Shanti Swaroop Bhatnagar Award winner Dr.M Venkataratnam at its campus on Saturday.

Dr Venkataratnam is a Senior Scientist at National Atmospheric Laboratory, Tirupati in Andhra Pradesh.

The Council of Scientific and Industrial Research Institute (CSIR) presents Shanti Swaroop Bhatnagar awards every year for Scientists for their meritorious works in the field of scientific researches.

The award consists of Rs 5 lakh and a citation. Dr.M Venkataratnam is only one from both Telugu states who won this prestigious award for 2018.

Speaking on the occasion, Dr.Venkataratnam said that 'he is proud of winning the prestigious Shanti Swaroop Bhatnagar award. He asked the faculty members of SRM University to have a target to attain the prestigious scientific award which ultimately raises their scientific knowledge and also status among the young scientists'.

Dr Jamshed Bharucha, SRM University Vice Chancellor, AP- Amaravati has complimented the role of Dr Venkataratnam in the field of Researches on atmosphere.

He said that SRM always promotes the researches among the faculty members.

Prof. D Narayana Rao, Pro-Vice Chancellor, SRM University, AP-Amaravati on this occasion announced Rs 1 crore cash prize for its faculty members, if they won the Shanti Swaroop Bhatnagar award in future.

SRM University is now conducting more researches on Hydrogen train, 3 D gold printing and many other subjects, Prof Rao added.

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CSIR-IHBT

3rd November, 2018

खेती के लिए अपनाएं नई तकनीकें

ग्रामीण अजीविका मिशन के तहत सीएसआइआर-आइएचबीटी में कार्यक्रम आयोजित

संवाद सहयोगी, पालमपुर : सीएसआइआर के पालमपुर स्थित हिमालय जैवसंपदा प्रौद्योगिकी संस्थान में मिजोरम राज्य के ग्रामीण आजीविका मिशन के अधिकारियों व स्वयं सहायता समूहों की महिला किसानों के लिए चार दिवसीय जागरूकता व प्रशिक्षण कार्यक्रम आयोजित किया गया। इसमें किसानों की आर्थिकी सुदृढ़ करने के लिए विभिन्न कृषि प्रौद्योगिकियों की जानकारी दी गई। संस्थान निदेशक डॉ. संजय कुमार ने कार्यक्रम में बतौर मुख्य अतिथि शिरकत करते हुए कहा कि सीएसआइआर-हिमालय जैवसंपदा प्रौद्योगिकी संस्थान की ओर से विकसित विभिन्न तकनीकों को अपनाकर मिजोरम के किसान भी लाभ उठा सकते हैं। संस्थान के सहयोग से पहली बार सेब की लो चिलिंग किस्में मिजोरम के चंपाई जिला के करीब 5.2 एकड़ क्षेत्र में उगाए जा रहे हैं। इसके सफलतापूर्वक परिणाम प्राप्त हुए हैं। इन किस्मों को कम से कम 300 से 500 घंटे की चिलिंग अवर्स की आवश्यकता होती है। कार्यक्रम समन्वयक डॉ. राकेश कुमार ने संगंधित फसलों गुलाब, रोजमेरी, लैवेंडर, जंगली गेंदा, लेमन ग्रास की खेती, उत्पादन व मूल्यवर्धन की जानकारी दी। विश्वभर में



पालमपुर में आयोजित कार्यक्रम में उपस्थित मिजोरम के किसान ● जागरण

25 लाख पौधों की प्रजातियों में से करीब तीन हजार प्रजातियों में संगंध तेल पाया जाता है। 300 से अधिक संगंध तेल विश्व व्यापार में हैं, लेकिन केवल 100 से कम किस्मों का अधिक और लगातार मांग के चलते नियमित रूप से व्यापार और खेती की जाती है। मिजोरम से आए किसानों को इंजीनियर केके सिंह ने बांस चारकोल प्रसंस्करण व बांस के विभिन्न उत्पादों की भी जानकारी दी। प्रोजेक्ट मैनेजर मिजोरम राज्य ग्रामीण आजीविका मिशन आइजॉल लालवेनसांगा ने बताया कि इस प्रकार

के जागरूकता एवं प्रशिक्षण कार्यक्रम मिजोरम राज्य के किसानों के लिए बहुत उपयोगी हैं।

नकदी फसलों को व्यावसायिक स्तर पर उगाएं किसान

संवाद सहयोगी, पालमपुर : हिमालय जैवसंपदा प्रौद्योगिकी संस्थान पालमपुर में सीएसआइआर अरोमा मिशन के अंतर्गत हिमाचल व जम्मू-कश्मीर के प्रगतिशील किसानों के लिए दो दिवसीय जागरूकता शिविर का आयोजन किया गया। इसमें

आह्वान

- मिजोरम के अधिकारियों व महिला किसानों को दिया जा रहा प्रशिक्षण
- मिजोरम में उगाई जा रही हैं सेब की लो चिलिंग किस्में

हिमाचल के मंडी जिले व जम्मू-कश्मीर के रेयासी जिले के करीब 60 किसानों ने भाग लिया। मिशन के अंतर्गत पूरे भारत में 5550 हेक्टेयर भूमि पर संगंध फसलों की खेती की जा रही है। संस्थान के निदेशक डॉ. संजय कुमार ने बताया कि जैव आधारित आर्थिकी वैश्विक नेतृत्व प्रदान करने और भारत सरकार की ओर से निर्धारित किसानों की आय को दोगुणा करने के लक्ष्यों को प्राप्त करने की दिशा में संस्थान ने सुगंध, खाद्य एवं न्यूट्रास्यूटिकल, पोषण, फाइबर, रंग एवं रंजक के क्षेत्र में विभिन्न मिशन मोड़ और ट्रांसलेशनल परियोजनाओं को शुरू किया है। उन्होंने किसानों से आह्वान किया कि वे संगंध फसलों को व्यावसायिक स्तर पर उगाएं तथा अच्छी आमदनी प्राप्त करें। इस अवसर पर संस्थान प्रधान वैज्ञानिक डॉ. राकेश कुमार, डॉ. राणा, विवेश सूद व अन्य मौजूद रहे।

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Dainik Jagran, Page no. 4

Award for IICT scientist

CSIR-IICT

3rd November, 2018

CSIR-Indian Institute of Chemical Technology principal scientist and Department of Biotechnology Tata Innovation Fellow S. Venkata Mohan has been selected for the prestigious Vasvik Award for 2018 in the category of Environmental Science and Technology.

Vasvik Research Awards are presented by Vividhlaxi Audyohik Samshodhan Vikas Kendra, Mumbai, to scientists and researchers who have excelled in their designated field. Dr. Venkata Mohan's research contributions over the past 20 years in the interface of environment and bioengineering related to environment and human health were considered for selecting him for this award.

He had made concerted efforts to develop novel and sustainable technologies by utilization of waste as a potential resource for both value addition and its treatment through his multi-disciplinary approach. His work has convincingly documented that waste/wastewater is a viable and renewable feed-stock/substrate for harnessing various forms of clean bio-energy, said a press release.

The scientist had also successfully demonstrated the production of bio-hydrogen on a pilot scale with simultaneous treatment of waste water in a bio-refinery approach, a press release said.

Published in:
[The Hindu](#)

Tata Chem plans capex of ₹2,400 cr.

CSIR-CECRI

2nd November, 2018

Investment will raise the firm's soda ash, salt capacities

The board of Tata Chemicals Ltd. has approved a capital expenditure of ₹2,400 crore which would be deployed towards de-bottlenecking of Mithapur facility. The investment would enhance the company's soda ash capacity by about 1,50,000 MT, salt production by 4,00,000 MT and upgrade turbines for higher efficiency.

To grow its specialty business, Tata Chemicals is considering entry into the lithium-ion battery sector to develop cell chemistries to meet Indian applications. The firm recently entered into an MOU with CSIR – CECRI (Central Electrochemical Research Institute), Karaikudi to explore collaborative technology for scaling up of manufacturing cathode materials for lithium-ion cells.

R. Mukundan, managing director, Tata Chemicals, said, “With the intended expansion at Mithapur, we would substantially raise our manufacturing capacity of soda ash and edible salt by 20% and 40% respectively. This expansion will be achieved on energy from waste heat, solar and wind.” “We are excited at the opportunities in the specialty business and are exploring a foray into lithium energy storage solutions. The market in India for these applications could be 40-60 GWh by 2025, and we are in discussions with multiple technology and equipment providers,” Mr. Mukundan said.

The company on Friday reported a consolidated net profit of ₹409 crore, up 17% from the same period last year on revenues of ₹2,961 crore, up 10% from the same period last year. On a standalone basis, the company reported a net profit of ₹295 crore, up 109% from the same period last year on standalone income of ₹1,014 crore, up 23% from the same period last year.

As on September 30, 2018, the company's consolidated net debt was ₹2,180 crore.

“We are pleased to share a good overall performance across all three businesses. India's basic chemistry products business continues to register a robust performance, due to operational efficiencies, a robust product mix and better realisations. On the global front, adverse impact on North American operations was partially offset by better sales realisation,” Mr. Mukundan said.

Published in:

[The Hindu](#)

CSIR-NGRI

1st November, 2018

Civic body bags first prize for water security

tnn | Nov 1, 2018, 04:00 IST

✉️ 🖨️ A- A+

Surat: The Surat Municipal Corporation (SMC) has added yet another feather in its cap by winning first prize at the annual water awards by Federation of Indian Chamber of Commerce and Industry (FICCI).

The award under FICCI's water mission will be awarded to SMC under the title 'water security' for taking various measures in water and wastewater sector.

The award will be presented to deputy mayor Nirav Shah by Union Minister for Water Resources, river development and Ganga Rejuvenation, Arjun Ram Meghwal at a ceremony in New Delhi on Thursday.

The FICCI water awarded were launched to promote awareness, policy advocacy, sharing of best practices and thought leadership in the area of water use efficiency.

Official sources said that the SMC has implemented various measures and efforts for water security in the Diamond City. Two new French wells of the 55 million litres per day (MLD) capacity are under construction and that tenders have been issued for the construction of six new French wells identified under the aquifer mapping survey conducted by the National Geophysical Research Institute (NGRI).

Talking with TOI, additional city engineer, KH Khatwani said, "We have adopted zero liquid discharge (ZLD) for treating waste water.

A 46 MLD plant is coming up in the city. Moreover, we are constructing two new 70 MLD tertiary treatment plant to treat waste water and supply to the industries"

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Published in:

The Times of India

DoNER to help S&T and CSIR to institutionalize the technical applications for job creation

CSIR-NEIST

1st November, 2018

A new Science Centre, the "Technology Facility Centre" (TFC) in the premises of the CSIR-North East Institute of Science & Technology (NEIST) in Jorhat, Assam, has been established by the the Ministry of Development of North Eastern Region (DoNER). DoNER has come forward to help the Department of Science and Technology (S&T) and Council of Scientific and Industrial Research (CSIR) to institutionalize the technical applications for promoting research as well as job creation, said Dr Jitendra Singh.

Ministry of DoNER will bear the cost of setting up of the new Science Centre in Assam and has begun with allocation of Rs.40 crore for its construction. Speaking on the occasion, DoNER Minister Dr Jitendra Singh said that Northeast has vast scientific reserves waiting to be explored and I am happy that the Ministry of DoNER had come forward to help the Department of Science & Technology (S&T) and CSIR. He hoped that the new TFC will prove to be a boon for young aspiring youth and will emerge as a Center of Excellence for all the eight States of Northeast as well as the rest of India.

Dr Singh referred to "North-Eastern Region Community Resource Management Project" (NERCORMP) and "North East Rural Livelihood Project" (NERLP), the two programmes run by the Ministry of DoNER and NEC, which were devoted to the cause of improving livelihood opportunities for unemployed youth, farmers, women and artisans. He expressed the hope that the new Center will serve as a technical and interventional catalyst for fast-track growth, which could eventually enable the North Eastern States to equal the success rate of some of the western States of India.

Published in:

[KNN India](#)

Training on cultivation & processing of Lemongrass & Citronella held

CSIR-NEIST

1st November, 2018

CSIR-North East Institute of Science & Technology organised a one day training programme on "Cultivation & Processing of High-yielding Lemongrass and Citronella" at its office in Lamphelpat today. Retired Commissioner Dr RK Nimai graced the occasion as chief guest while Director of AYUSH Directorate Dr A Guneshwor, Department of Life Sciences, MU Professor P Kumar and CSIR-NEIST, Jorhat Assam Scientist Dr Mohan Lai and CSIR-NEIST Imphal Principal Scientist Dr Huidrom Birkumar also attended. A total of 52 people took part in the training programme.

Speaking on the occasion, Dr H Birkumar conveyed that lemongrass and citronella, which are high yielding plants, have been planted covering a total of 500 ha of land, last year. Sapormeina in Kangpokpi district, Jiribam, Reithelmanbi, Chanam Sendrok, Wangjing Tekcham Ching and Heirok Mamang Ching are the selected areas for plantation of these plants. Informing that necessary equipment has been set up at CSIR-NEIST Lamphelpat office to extract oil from these plants, Birkumar conveyed that the matured plants grown at Jiribam and Keithelmanbi have started arriving at the said office and due process of oil extraction has begun.

He stated that the plants mature within six months from the time of plantation. The Principal Scientist further informed that lemongrass plant can be used to make green tea, perfumes, cosmetic products, room spray and even for medicinal purposes while citronella plant can be used to make Phenyl solution, floor cleaner, deodorant etc. The training programme has been organised to demonstrate the steps of planting such plants and to provide an opportunity to the people to generate a sustainable income.

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