



CSIR IN MEDIA

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CSIR'S TECHNO FEST KICKS OFF AT IITF

CSIR

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The Techno Fest unfolded various contributions of CSIR at its 14 theme pavilions, including water, aerospace and strategic sector, energy, leather, healthcare and generics among many others. Dr. Harsh Vardhan visited each theme pavilion and interacted with the labs' directors and scientists.

Dr. Harsh Vardhan said, "This Techno Fest is an opportunity for the young students, scientists and the common people to come under one roof and witness the knowledgebase of achievements and researches by CSIR."

The S&T Minister also unveiled the brochures of the thematic areas at the exhibition and keeping to the overall theme of the event, Digital India, launched a Micro Site of 'CSIR Platinum Jubilee Techno Celebrations'.

Nov 17, 2016

Source: <http://www.dailypioneer.com/vivacity/csirs-techno-fest-kicks-off-at-iitf.html>

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Aerospace & Strategic Sector Conclave by CSIR in IITF, Pragati Maidan

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The Council of Scientific and Industrial Research (CSIR), a day after the inauguration ceremony of its Platinum Jubilee Techno Fest, unveiled the thematic representations of 'Aerospace & Strategic Sector' on Tuesday in the 36th India International Trade Fair (IITF) at PragatiMaidan. Dr. GirishSahni, Director General (CSIR) interacted with the industrial partners and several notable dignitaries attended the conclave.

The conference commenced at the CSIR hall number 12-A, where senior scientists from various CSIR labs were present.

Dr. J.J. Jadhav, Director, CSIR- National Aerospace Laboratories (NAL), in his presentation, gave highlights of the achievements and contributions of NAL in the field of Aerospace & Strategic sector. Said Mr. Jadhav exclusively, "this is a very encouraging event. If we combine our expertise, we can take up big projects. Also from the NAL side, we have showcased Carbon Composites, Simulator, Redomes, etc. We are also looking into civil aircrafts vision. It has helped us to tell industry that what is our plan and technologies which are already commercialized. It was a very interactive session with all."

He showcased the promising technologies being used in the different aircraft of Indian Armed Forces. Focusing upon Public-Private partnership, he presented an outline for the future of light-weighted aircraft to be used for defense forces

The conclave unfolded with precise details about the Aerospace technology and innovations as Dr. K. Muraleedharan, Director, Central Glass and Ceramic Institute (CGCRI) discussed about the importance of Nano Technology, Radiation Shielding and Thermal Generation.

He also spoke about the prevalent use of Optical Fiber which has proved to be a boon for the Telecommunication sector. Naresh Chandra Sharma, Head of Domestic Aerospace & Defense, Tata Advanced Material Limited elevated the conclave with his views on composites being used in aircrafts that have benefitted the aerospace sector. It includes fins and several composites used in the cockpit of an aircraft. Professor R.K. Sinha, Director, CSIR- Central Scientific Instruments Organization (CSIO) shared the lab's contribution to the Aerospace sector. CSIO has manufactured the Helmet Mounted Display for aircrafts' pilots, vehicle and human detection system used by the Indian Army and Laser Shadowgraphy.

The bullet proof jackets are also made by the continuous efforts of CSIO. The conference also had an interactive session by the other industrial partners of CSIR. Ketan. J. Patel from Unique Chemoplant Equipment addressed the conference with his detailed presentation about the Aerospace Autoclave Development.

It was followed by the presentations of Varinder Singh and Vinod Mathews from Bharat Electronics limited and Captronics Systems Pvt. Ltd respectively. Dr. Sitendu Mandal from CSIR-CGCRI spoke about the importance of commercialization of the technologies in recent times. He focused on the quantum of chemical analysis and to meet the demand of Atomic Energy.

He emphasized on Radiation shielding window glass, radiation signals and Bead Technologies. He said that there is no threat of the radiations to the environment. Signing of MoUs and Technology transfer also marked the day 2 of the Technofest by CSIR. It includes Enzen Global Solutions Private Limited, Bangaluru, for the development of a Wind Solar Wind Hybrid system for domestic applications, Aditya Birla Group, Mumbai- Technical Advisor Consultancy for establishing and a composite manufacturing unit for light Comabt Aircraft (LCA) composite parts and H&R Johnson (India) for low melting High Sodium Glass Beads, Mumbai. DG-CSIR, Dr. Girish Sahni concluded the conference with the question and answers session.

He said, “thanks to all the participants for joining this grand event at Techno Fest. There are new challenges that we shared and rectified here. People with ambition want to turn up to Research & Development that is a formidable challenge. It is highly palpable job that needs to be tapped soon.”

Nov 15, 2016

Source: <http://www.orissadiary.com/ShowBussinessNews.asp?id=70729>

CSIR

CSIR UNVEILS REPRESENTATIONS OF AEROSPACE SECTOR

The Council of Scientific and Industrial Research (CSIR), a day after the inauguration ceremony of its Platinum Jubilee Techno Fest, unveiled the thematic representations of 'Aerospace and Strategic Sector' at the 36th India International Trade Fair (IITF) at Pragati Maidan. Girish Sahni, Director General (CSIR) interacted with the industrial partners and several notable dignitaries who attended the conclave.

CSIR

CSIR technofest attracts crowd

ARCHANA JYOTI ■ NEW DELHI

From healthy goodies — banana toffee, chocolates, plant nutrients-based carbonated fruit juices and Omega 3 enriched ice creams — to low cost housing technologies and 3D printed prototypes used for the design and validation of various aerospace components in the high-tech sector: These and many other technical research and innovation that has made the life of the common man easy are being showcased at the mega expo Technofest 2016 here.

The mega show has been organised by the Council of Scientific and Industrial Research (CSIR) which is celebrating its Platinum Jubilee this year. Union Science and Technology Minister

the science and the technology components of major CSIR contributions, informative exhibits including demonstrable models are the highlights at the Technofest 2016.

For science enthusiast kids, their are science quiz and demonstrations, while the pavilion has a lot to offer for the startups as well the industry.

If carbonated beverages based on grape, sugarcane, pomegranate and sweet lime and anti-obesity oils and quinoa based chocolates have been developed by the Mysuru-based Central Food Technological Research Institute (CFTRI), the Lucknow based National Botanical Research Institute (NBRI) has exhibited anti-diabetic products and other health related innovations.

Technology Minister Harshvardhan, who inaugurated the Technofest 2016 at Hall No 12 A at Pragati Maidan on Monday, said that it is a golden opportunity for the students, researchers, scientists, business man and a common man to witness science innovation and researches being conducted by the 38 laboratories of the CSIR located across the country under one roof here.

"The entire history and contribution of the scientists from the CSIR since its inception 75 years ago can be seen through this window created in the ITE; 2016," added CSIR DG Girish Sahini adding that all the labs in one or another way has taken efforts to make the life of the common man easy.

Apart from 14 theme-based information panels highlighting

innovations.

A brand of tea, Tea wine, which has a 7-12 per cent alcohol content by volume, which has been exhibited by the Himachal Pradesh-based Institute of Himalayan Bioresource Technology (IHBT) has been a centre of query among many of its other herbal products catering pharmaceutical, cosmetic, food, and plant industries. CFTRI senior scientist Dr Malathi, who has worked on a project to develop an indigenous variety of two highly nutritious (grain crops Chia(rich in omega-3 fatty acid and alpha linolenic acid) and quinoa (high protein content) said that the seeds can be highly beneficial supplements in a country like India that has a large number of malnutrition kids. "We are looking for more tie-ups," she added.

CSIR

CSIR ने बताई 75 साल की उपलब्धियां

■ प्रस, नई दिल्ली : वैज्ञानिक एवं औद्योगिक अनुसंधान परिषद (सीएसआईआर) अपनी 75 साल की उपलब्धियों को जनता के सामने ले आई है। राजधानी में शुरू हुए अंतरराष्ट्रीय व्यापार मेले में उसने अपनी कामयाबियों का इजहार किया है। उसने बताया है कि कैसे आम आदमी की रोजमर्रा की जिंदगी को आसान बनाने के साथ ही उसने इंडस्ट्री की जरूरतों को पूरा करने

के लिए कई आविष्कार किए हैं। इस मकसद से बनाए गए पैवेलियन में परिषद के वैज्ञानिक लोगों को बता रहे हैं कि कैसे उन्होंने समय रहते सुनामी का एलर्ट जारी करने के लिए तकनीक का विकास करने के साथ ही दिल की आर्टरी के क्लॉट का सफाया करने के लिए दवा बनाई है। पैवेलियन का उद्घाटन करते हुए साइंस ऐंड टेक्नॉलजी मंत्री डॉ. हर्षवर्धन ने कहा कि सरकार साइंस के जरिए आम आदमी की जिंदगी को आसान बनाने के लगातार

CSIR Techno Fest to showcase its 75-year journey

CSIR

The Council of Scientific and Industrial Research (CSIR) will showcase its 75-year journey at its Platinum Jubilee Techno Fest this year, which is being organised as part of the 36th India International Trade Fair.

During the two-week fair from November 14 to November 27, CSIR will have exhibits on 14 different themes.

The themes include aerospace and strategic sector, ecology and environment, water, food and nutrition, chemicals and petrochemicals among others.

There will also be a public speaking competition on air pollution which will be held.

Rakesh Kumar, Director of CSIR National Environment Engineering Research Institute, said, "Not just Delhi but there are at least 37 cities with very high pollution levels. We will treat this competition as a crowd sourcing of ideas as every city has its own unique set of problems vis-a-vis pollution."

There will be awards for the winners of this competition.

On display will also be a model depicting encasing of nuclear waste in glass. Director of Central Glass and Ceramic Research Institute K Muraleedharan said, "We are doing this to create awareness among people about the ways in which we secure our nuclear plants and the waste generated from it."

Harsh Vardhan, Minister of Science and Technology and Earth Sciences, said that schools and colleges have been requested to participate in large numbers at the exhibition.

PTI | Nov 11, 2016

Source: www.business-standard.com/article/pti-stories/csir-techno-fest-to-showcase-its-75-year-journey-116111101362_1.html

Metrology: CSIR-NPL stands the test of time

CSIR-NPL

National Physical Laboratory CSIR-NPL is one among the two scientific institutes established in the country under the aegis of CSIR in 1950. Over the years, the NPL also known as the National Measurement Institute of (NMI) India has more than realized its primary mandate as the keeper of measurement standards for the nation while also substantially expanding its research activities to emerge as a leading national institution for research in a whole gamut of areas in the Physical Sciences.

Hailed as the Time Keeper of India CSIR-NPL, provides the Indian Standard Time (IST), steadfastly promoting Metrology, the science of measurement and its application, through the ensuing decades post -Independence.

National Physical Laboratory (NPL) is one among the two scientific institutes established in the country under the aegis of CSIR in 1950. Over the years, the NPL also known as the National Measurement Institute, NMI of India has more than realized its primary mandate as the keeper of measurement standards for the nation while also substantially expanding its research activities to emerge as a leading national institution for research in a whole gamut of areas in the Physical Sciences.

Metrology is one of the key components in improving product quality which in turn affects quality of life. For instance, home appliances have to meet certain specifications in terms of acoustic noise, mechanical dimensions, pressure, electrical voltages and consumption. Metrology and calibrated instruments are a must for judging the conformance to specifications.

CSIR- NPL through the Government is part of the Metre Convention, a diplomatic treaty which was signed by representatives of 17 countries in Paris, in 1875. The treaty created the International Bureau of Weights and Measures (BIPM), an intergovernmental organization under the authority of the General Conference on Weights and Measures (CGPM). India signed this treaty in 1957.

CSIR-NPL has successfully established equivalence with international standards. All other reference and working standards in other laboratories and industries throughout India are required to be traceable to the National Standards of Measurements maintained at CSIR- NPL.

Some important Few of the milestones for metrological activities carried out by CSIR-NPL India ,include introduction of the metric system in India; Law of Weights and Measures promulgated (Re-issued in 1976, 1988), India joining the Meter Convention, 'Apex Metrology Laboratory', a highly controlled environment building for apex level measurements in 2015.

Currently, CSIR-NPL provides apex calibration of equipment to various industries, strategic, academia and government agencies to the tune of six crores per year which is likely to double over the next five years. Such calibrations at CSIR-NPL are key drivers to the growth engine of industries and assumes utmost significance for ensuring the success of "Make in India" mission. Accurate and precise measurements would also support Indian industry and business to innovate.

CSIR-NPL is gearing up its existing "Quantum Metrology" laboratory that will provide world-class measurement expertise to validate the new quantum technologies and secure the India's position in this emerging field ("Sashakt Bharat").

Nov 17, 2016

Source: <https://blog.mygov.in/metrology-csir-npl-stands-the-test-of-time/>

New water mapping, oil extraction techniques by NGRI

CSIR-NGRI

Indian scientists are using electro magnetic signals from the earth to prepare water maps of various regions and decipher at what depth water is available.

CSIR-National Geophysical Research Institute (NGRI) Hyderabad is working on the new technology called Transient Heliborne electro-magnetic survey.

In this, a helicopter fitted with instruments measures the electro magnetic signals from the earth. Once the data is taken and analyzed, the scientist can decipher the structures beneath the earth and can find out the conductive zones inside the earth. These also correspond to water zones.

Therefore, scientist are able to prepare water maps of the regions and find out at what depth water is available. So far on pilot basis they have mapped six regions including the desert plains of Rajasthan, Gangetic plain in Uttar Pradesh and the rocky terrain in Tamil Nadu.

The results are very encouraging and NGRI which alone has this technology is now ready to take up mapping of the entire country with the assistance of Ministry of Water Resources.

Speaking to PTI, Dr N Purnachandra Rao, Chief Scientist and Professor (Seismology), said that the government is very keen on pushing the study forward so that the whole country can be mapped in order to have the national aquifer map.

This technology has been cross checked by putting drill holes and so far they have matched up with the Heliborne survey paving way for successful use of this procedure to decipher where ground water is available, at what level and how it can be maintained, he added.

NGRI scientists are also carrying out a research to use carbon dioxide to pump out any fuel left in used oil wells or oil reservoirs.

Once the carbon dioxide pushes out the remaining oil then the carbon dioxide will be capped deep inside the excavation sites.

The institute is carrying out research on the important

topic of carbon dioxide sequestration in oil reserves which will help in enhancing oil recovery.

The sequestration technique uses carbon dioxide from the atmosphere and injects it in used oil reservoirs to pump out the remaining oil.

Rao explained that after extraction of oil from reservoirs some oil remains as it is difficult to extract completely.

The process of extracting this remaining oil from these old oil reservoirs has remained difficult so far. But now a new technique has been developed using carbon dioxide from the atmosphere.

With increased carbon dioxide levels in the atmosphere due to high levels of emissions from vehicles, industries etc, this procedure is beneficial.

Rao said that the remaining oil from these reservoirs can be pumped out which hitherto was not possible and precious foreign exchange to some extent can be saved which is used to import oils.

Research to refine this technique is going on. NGRI is using simulation techniques on computer called '4 D seismics' where the exact structure of the earth in that particular area is created and scientist find out the passage to the oil reservoir.

Once the accuracy is developed they go to the next phase wherein it is seen how much carbon dioxide can be injected and how much oil can be extracted.

He said research is going on in this 4 D Seismic modelling at NGRI and once successful oil companies can come forward and use this sequestration procedure.

NGRI plans to tie up with oil companies to tap the oil oil fields where not so refined extraction techniques were used during the past and a lot of oil could still be present.

The two major oil fields which have long been extracted include the Assam Digboi fields and the Bombay High. Similar oil fields are in Rajmundry and in Saurashtra.

एनजीआरआइ ने खोजी जल-मानचित्रण व तेल निकासी की नई तकनीक

हैदराबाद, 15 नवंबर (भाषा)।

भारतीय वैज्ञानिक विभिन्न क्षेत्रों में पानी की मौजूदगी से जुड़े नक्शे तैयार करने के लिए और धरती के नीचे जल का पता लगाने के लिए विद्युत चुंबकीय संकेतों का इस्तेमाल कर रहे हैं।

सीएसआइआर-नेशनल जियोफिजिकल रिसर्च इंस्टीट्यूट (एनजीआरआइ) हैदराबाद 'ट्रांजिएंट हेलीबॉन इलेक्ट्रो-मैग्नेटिक सर्वे' नामक नई प्रौद्योगिकी पर काम कर रहे हैं। इस प्रौद्योगिकी में उपकरणों से लैस एक हेलिकॉप्टर धरती से आने वाले विद्युत चुंबकीय संकेतों का आकलन करता है। एक बार डाटा लेकर विश्लेषित कर लिए जाने पर वैज्ञानिक धरती के नीचे की संरचनाओं का आकलन कर सकते हैं और धरती के अंदर सुचालक क्षेत्रों का पता लगा सकते हैं। ये जलीय क्षेत्रों पर भी लागू होते हैं। इसलिए अब वैज्ञानिक विभिन्न क्षेत्रों के जलीय नक्शों को तो तैयार कर ही सकते हैं, साथ ही यह भी पता लगा सकते हैं कि पानी किस गहराई पर उपलब्ध है। अब तक

प्रायोगिक तौर पर उन्होंने छह क्षेत्रों का मानचित्रण किया है, जिनमें राजस्थान के रेगिस्तानी मैदान, उत्तर प्रदेश के गंगा के मैदानी इलाके और तमिलनाडु के चट्टानी क्षेत्र शामिल हैं।

इसके परिणाम बेहद उत्साहवर्धक हैं। अकेले ऐसी प्रौद्योगिकी रखने वाला एनजीआरआइ जल संसाधन मंत्रालय की मदद से पूरे देश के मानचित्रण का काम अपने हाथ में लेने के लिए तैयार है। प्रमुख वैज्ञानिक व प्रोफेसर (सिस्मोलॉजी) डॉ. एन पूर्णचंद्र राव ने कहा कि सरकार इस अध्ययन को आगे बढ़ाने के लिए बेहद उत्सुक है ताकि पूरे देश के जलस्तर संबंधी नक्शों को तैयार किया जा सके।

राव ने कहा कि जमीन में छेद कर इस प्रौद्योगिकी की पुनः जांच भी की गई। अब तक इनके नतीजे हेलीबॉन सर्वे के अनुरूप पाए गए हैं। इसके साथ ही इस प्रक्रिया का इस्तेमाल इस दिशा में करने का मार्ग प्रशस्त हो गया है कि भूजल कहां मौजूद है, किस स्तर पर मौजूद है और इसे कैसे बनाए रखा जा सकता है। एनजीआरआइ के वैज्ञानिक तेल के कुओं या

तेल के कुंड में बचे ईंधन को निकालने के लिए कार्बन डाइऑक्साइड संग्रहण का इस्तेमाल करने को लेकर भी अनुसंधान कर रहे हैं। इससे तेल प्राप्ति को बढ़ाने में मदद मिलेगी। एक बार कार्बन डाइऑक्साइड बचे हुए तेल को बाहर निकाल देती है तो कार्बन डाइऑक्साइड उत्खनन स्थलों के अंदर एकत्र हो जाएगी।

इस प्रौद्योगिकी में वायुमंडल की कार्बन डाइऑक्साइड का प्रयोग किया जाता है और इस्तेमाल हो चुके तेल भंडारों में बचे तेल को निकालने के लिए इसे तेल के भंडारों में प्रवेश कराया जाता है। राव ने बताया कि तेल के कुंडों में से तेल निकाले जाने के बाद भी कुछ न कुछ मात्रा रह जाती है, जिसे निकालना मुश्किल होता है। अब तक इस शेष बचे तेल को निकालना मुश्किल रहा है लेकिन अब जलवायु में कार्बन डाइऑक्साइड के इस्तेमाल वाली नई तकनीक इस दिशा में मददगार साबित हो सकती है। वाहनों, उद्योगों आदि के कारण होने वाले उत्सर्जन के बाद जलवायु में कार्बन डाइऑक्साइड की उच्च मात्रा को देखते हुए यह प्रक्रिया फायदेमंद है।

Nov 16, 2016

CSIR-NGRI

जल-मानचित्रण और तेल निकासी की नई तकनीकें निकाली

■ हैदराबाद।

भारतीय वैज्ञानिक विभिन्न क्षेत्रों में पानी की मौजूदगी से जुड़े नक्शे तैयार करने के लिए और धरती के नीचे जल का पता लगाने के लिए विद्युत चुंबकीय संकेतों का इस्तेमाल कर रहे हैं।

हेलीकॉप्टर धरती से आने वाले विद्युत-चुंबकीय संकेतों का आकलन करता है : 'सीएसआईआर - नेशनल जियोफिजिकल रिसर्च इंस्टीट्यूट' (एनजीआरआई) हैदराबाद 'ट्रांजिएंट हेलीबोर्न इलेक्ट्रो-मैग्नेटिक सर्वे' नामक नई प्रौद्योगिकी पर काम कर रहे हैं। इस प्रौद्योगिकी में, उपकरणों से लैस एक हेलीकॉप्टर धरती से आने वाले विद्युत-चुंबकीय संकेतों का

अब वैज्ञानिक विभिन्न क्षेत्रों के जलीय नक्शों को तो तैयार कर ही सकते हैं, साथ ही यह भी पता लगा सकते हैं कि पानी किस गहराई पर उपलब्ध है

अब तक प्रायोगिक तौर पर छह क्षेत्रों का मानचित्रण किया गया है, जिनमें राजस्थान के रेगिस्तानी मैदान, उत्तर प्रदेश के गंगा के मैदानी इलाके और तमिलनाडु के चट्टानी क्षेत्र शामिल हैं

दिशा में करने का मार्ग प्रशस्त हो गया है कि भूजल कहां मौजूद है, किस स्तर पर मौजूद है और इसे कैसे बनाए रखा जा सकता है।

तेल प्राप्ति को बढ़ाने में मदद मिलेगी : एनजीआरआई के वैज्ञानिक तेल के कुंओं या तेल के कुंड में बचे ईंधन को निकालने के लिए कार्बन डाइ ऑक्साइड संग्रहण का इस्तेमाल करने को लेकर भी अनुसंधान कर रहे हैं। इससे तेल प्राप्ति को बढ़ाने में मदद मिलेगी। एक बार कार्बन डाइ ऑक्साइड बचे हुए तेल को बाहर निकाल देती है तो कार्बन डाइ ऑक्साइड उत्खनन स्थलों के अंदर एकत्र हो जाएगी। इस प्रौद्योगिकी में वायुमंडल की कार्बन डाइ ऑक्साइड

हेलीकॉप्टर धरती से आने वाले विद्युत-चुंबकीय संकेतों का आकलन करता है : 'सीएसआईआर - नेशनल जियोफिजिकल रिसर्च इंस्टीट्यूट' (एनजीआरआई) हैदराबाद 'ट्रांजिएंट हेलीबोर्न इलेक्ट्रो-मैग्नेटिक सर्वे' नामक नई प्रौद्योगिकी पर काम कर रहे हैं। इस प्रौद्योगिकी में, उपकरणों से लैस एक हेलीकॉप्टर धरती से आने वाले विद्युत-चुंबकीय संकेतों का आकलन करता है। एक बार डाटा लेकर विश्लेषित कर लिए जाने पर वैज्ञानिक धरती के नीचे की संरचनाओं का आकलन कर सकते हैं और धरती के अंदर सुचालक क्षेत्रों का पता लगा सकते हैं। ये जलीय क्षेत्रों पर भी लागू होते हैं।

छह क्षेत्रों का मानचित्रण तैयार : अब वैज्ञानिक विभिन्न क्षेत्रों के जलीय नक्शों को तो तैयार कर ही सकते हैं, साथ ही यह भी पता लगा सकते हैं कि पानी किस गहराई पर उपलब्ध है। अब तक प्रायोगिक तौर पर उन्होंने छह क्षेत्रों का मानचित्रण किया है, जिनमें राजस्थान के रेगिस्तानी मैदान, उत्तर प्रदेश के गंगा के मैदानी इलाके और तमिलनाडु के चट्टानी क्षेत्र शामिल हैं। इसके परिणाम बेहद उत्साहवर्धक हैं और अकेले ऐसी

गहराई पर उपलब्ध है अब तक प्रायोगिक तौर पर छह क्षेत्रों का मानचित्रण किया गया है, जिनमें राजस्थान के रेगिस्तानी मैदान, उत्तर प्रदेश के गंगा के मैदानी इलाके और तमिलनाडु के चट्टानी क्षेत्र शामिल हैं

प्रौद्योगिकी रखने वाला 'एनजीआरआई' जल संसाधन मंत्रालय की मदद से पूरे देश के मानचित्रण का काम अपने हाथ में लेने के लिए तैयार है।

जमीन में छेद करके इस प्रौद्योगिकी की पुनः जांच : प्रमुख वैज्ञानिक एवं प्रोफेसर (सिस्मोलॉजी) डॉ. एन पूर्णचंद्र राव ने कहा कि सरकार इस अध्ययन को आगे बढ़ाने के लिए बेहद उत्सुक है ताकि पूरे देश के जलस्तर संबंधी नक्शे को तैयार किया जा सके। राव ने कहा कि जमीन में छेद करके इस प्रौद्योगिकी की पुनः जांच भी की गई और अब तक इनके नतीजे हेलीबोर्न सर्वे के अनुरूप पाए गए हैं। इसके साथ ही इस प्रक्रिया का इस्तेमाल इस

के वैज्ञानिक तेल के कुंओं या तेल के कुंड में बचे ईंधन को निकालने के लिए कार्बन डाइ ऑक्साइड संग्रहण का इस्तेमाल करने को लेकर भी अनुसंधान कर रहे हैं। इससे तेल प्राप्ति को बढ़ाने में मदद मिलेगी। एक बार कार्बन डाइ ऑक्साइड बचे हुए तेल को बाहर निकाल देती है तो कार्बन डाइ ऑक्साइड उत्खनन स्थलों के अंदर एकत्र हो जाएगी। इस प्रौद्योगिकी में वायुमंडल की कार्बन डाइ ऑक्साइड का प्रयोग किया जाता है और इस्तेमाल हो चुके तेल भंडारों में बचे तेल को निकालने के लिए इसे तेल के भंडारों में प्रवेश कराया जाता है।

नई तकनीक मददगार साबित हो सकती है : तेल के कुंडों में से तेल निकाले जाने के बाद भी कुछ न कुछ मात्रा रह जाती है, जिसे निकालना मुश्किल होता है। अब तक इस शेष बचे तेल को निकालना मुश्किल रहा है लेकिन अब जलवायु की कार्बन डाइ ऑक्साइड के इस्तेमाल वाली नई तकनीक इस दिशा में मददगार साबित हो सकती है। वाहनों, उद्योगों आदि के कारण होने वाले उत्सर्जन के बाद जलवायु में कार्बन डाइ ऑक्साइड की उच्च मात्रा को देखते हुए यह प्रक्रिया फायदेमंद है। ■ भाषा

NGRI to organise an 'Open Day'

CSIR-NGRI

The National Geophysical Research Institute (CSIR-NGRI) will organise an 'open day' on November 15 as part of the second India International Science Festival (IISF 2016). The IISF will be held in Delhi later this year.

In the run up to the national event, the CSIR-NGRI's 'open day' will focus on various fascinating facets of the earth. It will showcase the diverse branches of knowledge pertaining to the structure and dynamics of the human planet. The precursor event will also create awareness among people about the achievements of the NGRI in the last five decades.

Addressing media, NGRI director Dr VM Tiwari said the mega event in Delhi will involve and include the Indian youth with a view to improving their scientific understanding, temperament and appreciation for various feats in science and technology.

"It will target every sector of the population, especially the young minds. It also includes a wide range of activities like national-level science camps, young scientists meets, scientific workshops, science-technology-industry expo, science film festival, interaction with NGOs, outreach and pre-event activities and cultural programs," he added.

Nov 16, 2016

Source: <http://timesofindia.indiatimes.com/city/hyderabad/NGRIs-open-day-a-big-hit-among-students/articleshow/55449576.cms>

NGRI's 'open day' a big hit among students

CSIR-NGRI

The National Geophysical Research Institute (NGRI) on Tuesday threw open its gates to general public showcasing its modern scientific equipment and achievements. Hundreds of people including a large number of students went round the NGRI-CSIR campus to find out how earthquakes are recorded. The theme of the NGRI's 'open day' was 'come and explore the fascinating earth'.

Nov 16, 2016

Source: <http://timesofindia.indiatimes.com/city/hyderabad/NGRIs-open-day-a-big-hit-among-students/articleshow/55449576.cms>

AMPRI TO ORGANISE PUBLIC OUTREACH PROGRAMME

CSIR-AMPRI

A public outreach programme would be organised at CSIR -Advanced Materials and Processes Research Institute (AMPRI), Bhopal as a precursor event of second India International Science Festival (IISF) 2016 on Wednesday. About 500 students and teachers would visit the institute on Wednesday.

The second IISF would be organized from December 7 to 11. The objective of this programme is to showcase the Indian science achievements and innovations for the students, young researchers and general public.

While talking to the media persons here on Tuesday, CSIR- AMPRI's Director S Das told that four students and teachers from various part of the state would be felicitated on the occasion for their contribution and active engagement in the field of Science and Technology. The students and teachers from Madhya Pradesh, Chhattisgarh and Orissa would visit various laboratories of CSIR - AMPRI, Bhopal to get acquainted with the latest R&D activities of the institute.

To enable the visitors to witness the R&D achievements of the Institute at one place, an exhibition on the research activities of CSIR - AMPRI would also be displayed during the programme. The students will also be able to interact with the scientists during the event. Films on science theme will also be shown.

Das further told that AMPRI is one of the constituent institutions of Council of Scientific and Industrial Research (CSIR), New Delhi. AMPRI is actively engaged in research and development activities in the areas of Advanced Metallic Materials , Lightweight Al foam and composites, Shape memory alloys ,Polymeric composites, Advanced construction materials , Hybrid fibers Industrial waste particulates reinforced advanced composites, advanced radiation shielding materials Environment Protection and Micro Separation Techniques.

Nov 16, 2016

Source: www.dailypioneer.com/state-editions/ampri-to-organise--public-outreach-programme.html

Pune researchers fabricate a flexible nanogenerator for wearable electronics

CSIR-NCL

Producing wearable electronics that uses a portable nanogenerator which generates electric power when pressure or twist is applied got a shot in the arm, thanks to research carried out by Pune researchers. The nanogenerator, which was fabricated by them, produced 14 volts when thumb pressure was applied. The results were published recently in the journal *Advanced Materials & Interfaces*.

To demonstrate the potential of the nanogenerator to power small electronic devices, pressure equivalent to thumb pressure was continuously exerted on the nanogenerator for 20 minutes by using a vibration producing motor. About 28 micro watt per square cm power and 14 volt that was generated was stored in a capacitor and used for charging a mobile phone.

Currently, there is considerable research emphasis to develop flexible or wearable devices. Such devices should be portable, lightweight, shock-resistant, and inexpensive. And the devices should ideally be powered by harvesting easily available mechanical or vibration energy, making battery or related wiring redundant. Piezoelectric materials, which can generate electrical power locally through stress or flexing, are a great proposition in this regard.

To produce the nanogenerator, researchers from Pune's Indian Institute of Science Education and Research (IISER) and the National Chemical Laboratory electrospun a piezoelectric polymer [P(VDF-TrFE)] directly onto a flexible, conducting carbon cloth. The carbon cloth was produced by the researchers by heating a piece of cotton cloth at 800 degree C for several hours in an inert atmosphere.

To improve the piezovoltage of the polymer fibres, the researchers coated the fibres with a stronger, inorganic ferroelectric material (BaTiO₃) paste. “The nanoparticles from the coating helps fill the gaps between the polymer nanofibres and increase the piezoelectric property,” says Prof. Satishchandra Ogale from the Department of Physics and Centre for Energy Science, IISER Pune and the corresponding author of the paper. In addition, the ferroelectric material was also incorporated into the polymer to further enhance the piezoelectric property. This was done right when the polymer was electrospun.

The amount of BaTiO₃ fibre incorporated into the polymer had to be optimised at 5 per cent. When the fibre density was less inside the polymer the density of interfaces (where the separation of positive and negative charges takes place) formed between the fibre and the polymer was also less. But flexibility was reduced when too much was added and it also led to more internal charging resulting in electrical short.

The coated polymer was covered by another piece of flexible carbon cloth before the device was sealed. The carbon cloth on either side of the device acted as two electrodes. The carbon cloth too contributes to the enhanced piezovoltage generated by the nanogenerator through its peculiar morphology as a substrate.

“The cloth has a surface microstructure which produces good bonding between the cloth (electrode) and the active layer. The bonding will be poor in the case of a metal layer,” says Prof. Ogale. “Due to the roughness of the cloth surface, when you press or flex the device the applied force is transmitted along different directions of the piezoelectric active layer. And this improves the piezoelectric property of the nanogenerator.” If the electrode were a flat metallic surface then the force applied would be transmitted in only one direction.

“When thumb pressure was applied on the polymer alone 2-3 volt was produced. In the case of the polymer with BaTiO₃ coating, the piezovoltage generated was 7-8 volt. But 14 volt was produced when BaTiO₃ was incorporated into the polymer and also coated on the fibre surface,” says Dipti Dhakras from NCL and the first author of the paper. “The voltage of 14 volt with a current of several microamperes is the highest power output reported for wearable type of nanogenerator using conducting cloth as the electrode,” notes the paper.

Piezoelectric materials are a great proposition in making lightweight, wearable devices

Indian scientists burdened by cost of research published in open access journals

CSIR-URDIP

Indians spend close to \$2.4 million annually to get their scientific research output published in different open access (OA) journals, authors of a new study say, raising concerns that scientists often have to cough up two months equivalent of salary to get their work into those journals. “We estimate that India is potentially spending about \$2.4 million annually on Article Processing Charges (APCs) levied by those journals. To publish a paper in OA, some journals levy a charge that is equivalent to two months’ salary of an assistant professor in India,” Muthu Madhan of DST Centre for Policy Research, Indian Institute of Science, Bengaluru, told IANS.

Criticising the practice, Madhan says it is not right, given the major part (about 70 per cent) of research funding is sourced from taxpayers. “And there is shortage of funds for research. It is not right for researchers to give part of it to rich publishers — who overcharge anyway for the meagre services they provide and take home profits in the range 30 to 40 per cent year after year even when the economy was not doing well,” he said. The authors arrived at the figure based on the data mined from Science Citation Index Expanded that revealed 37,078 papers were published by Indian researchers in 881 OA journals during the five-year period from 2010-2014. An abstract of the analysis is available in the Current Science journal, ahead of publication.

“This accounts for about 14.4 per cent of India’s overall publication output, considerably higher than the 11.6 per cent from the world,” the study notes. It is co-authored by Siva Shankar Kimidi of the Library Department, Indian Institute of Technology, Hyderabad; Subbiah Gunasekaran of the Knowledge Resource Centre, Central Electrochemical Research Institute, Karaikudi; and Subbiah Arunachalam of the DST Centre for Policy Research. The authors suggest that it would be prudent for Indian researchers to make their work freely available through inter-operable repositories, a trend that is growing significantly around the world.

The study does not include the expenditure on OA papers published by Indian researchers in subscription journals which make papers available on OA on payment of a fee. Raising the financial and ethical issue of paying for getting papers published in professional journals, the authors opine the funding agencies in India should “forbid researchers who are now using research grants” (funds provided only for research) to cover APCs. The analysis shed light on the fact that Indian authors have used 488 OA journals levying APC, ranging from Rs 500 to \$5,000, in the five years, to publish about 15,400 papers.

Use of OA journals levying APC has “increased” over the four years from 242 journals and 2,557 papers in 2010 to 328 journals and 3,634 papers in 2014. There has been a spike in the use of non-APC journals as well, but at a slower pace. More than half of these papers were published in just 13 journals. PLOS One and Current Science are the OA journals Indian researchers use most often, the authors note.

Though most leading Indian journals are open access ones and do not charge APC, there is a leaning towards “foreign journals” in the pecking order. “Most Indian journals are nowhere near the top in this order. In general, researchers prefer to publish their papers in prestigious journals (as considered by the community), irrespective of the publishing country of a journal. However, most of the prestigious journals (in science, technology and medicine) are published from either North America or Western Europe,” Madhan observed.

To circumvent the expenditure, Madhan suggested researchers make their papers OA in two ways. “They can publish their papers in traditional professional journals that do not levy an APC and place the accepted manuscript (called post-print) in an inter-operable institutional repository. There are ways — protocols — by which all the distributed institutional repositories could be viewed as a single mega repository by a searcher.”

Institutions can also establish and maintain an inter-operable repository at a negligible cost using open source software such as EPrints and DSpace. In India, there are many institutions that have set up such repositories. Notable among them is ScienceCentral — maintained by CSIR — URDIP Pune, which hosts repositories for institutions of CSIR, DBT and DST, and harvests and indexes metadata of the contents in those collections. It provides a single search interface, points out Madhan.

At the global level, Bielefeld Academic Search Engine (BASE) is a major player. The attitude, “paying money to publish papers” that the APC levying journals are trying to nurture, is dangerous for the scientific community, Madhan warned. “There is a feeling that this idea offers space for dubious publishers who exploit the scientific community and corrupt the research system, and one can no longer ignore the growth of such predatory publishing,” he added.

Nov 14, 2016

Source: tech.firstpost.com/news-analysis/indian-scientists-burdened-by-cost-of-research-published-in-open-access-journals-347179.html

GPR survey to be done for Harappa research

CSIR-NIO

Goa-based national institute of oceanography (NIO) will be lending a helping hand to Deccan college post graduate and research institute, Pune to excavate two mounds in Haryana's Rakhigarhi village. Archaeologists and researchers are currently in the process of unlocking the mysteries of the lifestyle of the Harappans in this village by studying their DNA.

With the help of the NIO, Deccan College will conduct a ground-penetrating radar (GPR) survey of two mounds at the site where they suspect prominent Harappan activity took place. While one site is supposed to be a manufacturing division where various crafts were developed, the other is the citadel where routine activities took place.

Their research is aimed at studying how the Harappan civilization from its formative stage evolved into a more developed stage.

Nida Sayed | TNN | Nov 13, 2016

Source: timesofindia.indiatimes.com/city/goa/GPR-survey-to-be-done-for-Harappa-research/articleshow/55404081.cms

Herbal compound promises cure for liver cancer

CSIR-NIIST

A medicinal plant which grows as weed in wastelands across India could soon provide a potent cure for liver cancer.

An interdisciplinary team of scientists from four major institutes has reported that a compound derived from the leaves of *Solanum nigrum*, known as Manithakkali in Malayalam, has remarkable efficacy in treating liver cancer.

Evaluation of the compound, a saponin named Uttroside B, has shown that it is 10 times more effective than Sorafenib, the only drug currently available for the treatment of hepatocellular carcinoma. The finding has been published in the latest issue of *Scientific Reports*, a journal published by the Nature group.

Widely used

The team has isolated the compound from the leaves of the plant. Also known as Black nightshade, *Solanum nigrum* belongs to the family Solanaceae and is widely used in traditional medicine for various ailments such as inflammation, jaundice, bronchitis, asthma, leprosy, and skin disorders. It is a rich source of anticancer molecules. The team comprising researchers from the Rajiv Gandhi Centre for Biotechnology, National Institute for Interdisciplinary Science and Technology (NIIST), Government Medical College, Thiruvananthapuram, and the National Chemical Laboratory, Pune, has also found that unlike Sorafenib, the plant-based compound does not cause noticeable side effects.

Laboratory tests showed drastic inhibition of tumour growth in mice. The team has filed for a patent on the finding and is exploring the possibility of a tie-up with the University of Oklahoma, USA, for clinical trials.

According to Ruby John Anto, cancer researcher at the RGCN and a lead author of the paper, various plant species of the Solanum family have been reported to have considerable amount of saponins which exhibit potent activity against different cancer cell lines. “In the present study, we found that uttroside B isolated from the leaves of Solanum nigrum has maximum effect against liver cancer cells.”

T. NANDAKUMAR | Nov 14, 2016

Source: www.thehindu.com/news/cities/Thiruvananthapuram/herbal-compound-promises-cure-for-liver-cancer/article9342397.ece

Good rainfall made this year's air cleaner than last year's

CSIR-IITR

The city's post-monsoon air this year was less polluted than last year, thanks to sufficient rainfall in September. In the post-monsoon period which was monitored, Indiranagar among residential areas and Chowk and Charbagh among commercial areas were found to be the most polluted.

A study by the Indian Institute of Toxicology Research (IITR) to monitor the environmental status of Lucknow after monsoon across nine locations was released on Friday.

The study covered residential, commercial and industrial areas. This study is independent of the smog monitoring exercise of the recent past.

"Dilution is the only solution for pollution. This year, air was less polluted after monsoon due to sufficient rainfall and windy conditions. Air has a certain carrying capacity and winds dilute pollution whereas rainfall controls the suspension of dust particles in the air," said IITR director Alok Dhawan.

According to data released by IITR, the highest concentration (average of 24 hours) of PM₁₀ and PM_{2.5}—hazardous air pollutants—was recorded in Indiranagar among residential areas.

Among commercial areas, the highest concentration of PM₁₀ was recorded in Chowk and of PM_{2.5} in Charbagh.

Among residential areas, the 24-hour average concentration of PM₁₀ was 180.8 microgram(mcg)/cubic metre of air, 15 less than the level recorded last year. The concentration of PM_{2.5} also decreased by 7 mcg/cubic mt of air as compared to last year.

The maximum 24-hour mean concentration of PM₁₀ was in Vikasnagar (residential) with levels reaching as high as 302 mcg/cubic mt of air. Chowk recorded 398.2 mcg/cubic mt of air among commercial areas.

Indiranagar recorded maximum PM_{2.5} with levels reaching as high as 151.2 mcg/cubic mt of air whereas in commercial areas, Charbagh recorded the highest at 177.8 mcg/cubic mt of air. Pollution level recorded in the city was above the permissible limits of 100 and 60 for PM₁₀ and PM_{2.5} respectively according to the National Ambient Air Quality Standards.

INFO

Post-monsoon assessment from September 26 to October 26 for both years

PM₁₀ level

Year	2015	2016
Residential	195.2	180.8
Commercial	243.8	212.9

PM_{2.5} level

Year	2015	2016
Residential	97.1	91.0
Commercial	120.9	97.5

In micrograms/cubic metre of air

Nov 12, 2016

Source: timesofindia.indiatimes.com/city/lucknow/good-rainfall-made-this-years-air-cleaner-than-last-years/articleshow/55380016.cms

Post smog, air pollution above permissible limit

LUCKNOW: After a spell of smog in the state capital, the air pollution levels have dropped slightly. However, the level of pollutants is still higher than the permissible limits.

The post-monsoon ambient air quality report from the Indian Institute of Toxicology Research (IITR) suggests that respirable suspended particulate matter (RSPM) and particulate matter (PM) are high in all residential and commercial areas in the city. The permissible limit for RSPM is 100 micrograms per cubic metre but was recorded at 162.8 in Aliganj and 216.8 in Indira Nagar. In commercial areas too, the values recorded for RSPM were high with Chowk recording highest 264.8 and Alambagh as 192.3.

The PM levels too were found high in majority of areas. The permissible limit for PM is 60 micrograms per cubic metre but was

DECIBEL LEVEL ALSO UP

■ Current year's noise pollution data has been compared with the corresponding data of the previous three years. Daytime noise levels in residential areas of all the locations showed an upward trend over the previous year. In commercial-cum-traffic areas, noise level was slightly on the higher side at all the locations compared to the previous year except Alambagh. In industrial area Amausi the noise level was slightly higher than the previous year.

■ Night time noise level in residential and commercial areas also showed a slight increase as compared to last year's level except Aliganj and Vikas Nagar in residential area and Aminabad in commercial area. The industrial areas also showed slightly higher levels than the previous year but lower than the standard noise level.

recorded at 79.6 in Aliganj and 114.9 in Indira Nagar. In commercial areas too, the values recorded for PM were high with Charbagh recording highest (114.5) and

Chowk recording 108.9. "These pollutants are tiny particles that enter our body with air and settle inside our organs via blood. They can be really dangerous as greater

exposure can lead to organ failure," said Prof AA Mahdi, HoD biochemistry department at King George's Medical University.

HTC

RSPM	2015 (Oct)	2016 (Oct)
Vikas Nagar	199.5	175.0
Indiranagar	218.2	216.8
Gomti Nagar	180.4	168.8
Charbagh	235.0	207.4
Alambagh	264.9	192.3
Chowk	260.1	264.8
PM 2.5	2015 (Oct)	2016 (October)
Vikas Nagar	99.0	87.5
Indiranagar	101.6	114.9
Gomti Nagar	92.1	82.1
Charbagh	123.4	114.5
Alambagh	130.6	88.3
Chowk	116.9	10-8.9

हवा में मिले फेफड़ों को नुकसान पहुंचाने वाले कण

लखनऊ (एसएनबी)। भारतीय विष-विज्ञान अनुसंधान संस्थान (आईआईटीआर) ने शुक्रवार को प्रदूषण पर पोस्ट मानसून रिपोर्ट जारी की है। वैज्ञानिकों के मुताबिक गत वर्ष की तुलना में

आईआईटीआर ने जारी की मानसून रिपोर्ट

प्रदूषण के स्तर में गिरावट आयी है लेकिन वातावरण में बिखरे नैनो कण, सूक्ष्म कण और अति सूक्ष्म कण मानक से अधिक पाये गये हैं। यह नैनो कण (पीएम वन) अत्यधिक खतरनाक हैं और फेफड़ों में अधिक मात्रा में पहुंच कर नुकसान पहुंचाते हैं।

आईआईटीआर ने 26 सितम्बर से 25 अक्टूबर के बीच शहर के आवासीय, औद्योगिक और व्यावसायिक क्षेत्रों में वायु प्रदूषण की गुणवत्ता मापी। इसके साथ ही शहर के व्यावसायिक और ग्रामीण क्षेत्र में फाइन और अल्ट्रा फाइन पार्टिकल्स की भी जांच की। इस दौरान फाइन और अल्ट्राफाइन कण भी पाये गये।

क्षेत्र का नाम	पीएम 10	पीएम 2.5
अलीगंज	162.8	79.6
विकासनग	175.0	87.5
इन्दिरानगर	216.8	114.9
गोमतीनगर	168.8	82.1
चौक	264.8	108.9
चारबाग	207.4	114.5

वातावरण में फाइन और अल्ट्रा फाइन कण का ब्योरा

(माइक्रोग्राम प्रति घन मीटर में)

	पी 1	पी 0.56
आईआईटीआर (शहरी क्षेत्र)	18.29	15.48
आईआईटीआर गहरू (ग्रामीण क्षेत्र)	10.22	9.11

रिपोर्ट के अनुसार अलीगंज में पीएम 10 162.8 व पीएम 2.5 की औसत मात्रा 79.6 माइक्रोग्राम प्रति घन मीटर पायी गयी। इसी प्रकार विकास नगर में पीएम 10 व पीएम 2.5 क्रमशः 175 व 87.5, इन्दिरानगर में 216.8 व 114.9, गोमतीनगर में 168.8 व 82.1, चौक में 264.8 व 108.3 तथा चारबाग में 207.4 व 114.5 माइक्रोग्राम प्रति घन मीटर पायी गयी। इन स्थानों पर दो गुना से भी अधिक पीएम 10 पायी गयी।

इसी प्रकार वैज्ञानिकों ने फाइन (पी 1) व अल्ट्रा फाइन (पी 0.56) का भी अध्ययन किया। यह मानीटरिंग शहरी व्यावसायिक क्षेत्र आईआईटीआर के सामने महात्मा गांधी मार्ग और ग्रामीण क्षेत्र आईआईटीआर के गहरू स्थित द्वितीय कैम्पस के निकट की गयी। यहां पर शहरी क्षेत्र में पी 1 का औसतमान 18.29 माइक्रोग्राम प्रति घन मीटर व ग्रामीण क्षेत्र में 10.22 माइक्रोग्राम प्रति घन मीटर पायी गयी। इसी प्रकार पी 0.56 का औसतमान शहरी क्षेत्र में 15.48 व ग्रामीण क्षेत्र में 9.11 माइक्रोग्राम प्रति घन मीटर पायी गयी।

Also Published in

Navbharat Times: page 7, November 12

Amar Ujala: November 12

The pioneer: Page 4, November 12

TOI: Page 2, November 12

Industry holds meet with academia

CSIR-CSIO

To bridge the gap between industry and academia, Centre for Policy Research at Panjab University, in association with Central Scientific Instruments Organisation (CSIO) and Chandigarh Region Innovation & Knowledge Cluster (CRIKC), organized a first of its kind industry-academia meet, christened as Medical Device Innovation Cluster (MDIC) meet on Saturday. Professor R Tewari, coordinator, Centre for Policy Research and Convenor of MDIC informed the gathering that MDIC has been created for the promotion of innovative research in the area of medical devices by bringing industries (medical devices) and scientists of Chandigarh region on a single platform, and to provide assistance to Centre in framing proper guidelines for running the medical devices industry in India.

Inaugurating the meet, Professor Arun K Grover, vice-chancellor, Panjab University, highlighted achievements of CRIKC and informed the gathering of creating many industry-academia interfaces on the lines of MDIC, in collaboration with CII, Chandigarh. Dr Dinesh Dua, chairman, CII Council, Chandigarh, endorsed views of Professor Grover and assured full support in making Chandigarh region as one of the leading centres of industry-academia interactions. Professor R K Sinha, director, CSIO, highlighted contribution of CSIO in developing innovative medical devices for society. Keynote speaker Dr G D Puri emphasized the need of MDIC and elaborated on various medical devices developed in his laboratory at PGIMER in collaboration with industries. He apprised his endeavours to bring DST sponsored "Innovation Hub" in PGIMER. Dr Jatinder K Arora, executive director, Punjab State Council for Science & Technology, and Dr Anita Aggarwal, senior scientist at Department of Science & Technology, GoI, New Delhi, assured all possible help in establishing IA interfaces in Chandigarh region.

The last session was on "Strengthening Industry-Academia Interface" in which prominent personalities like Professor Sarit K Das, director, IIT-Ropar; Dr Ashok Ganguli, director, Institute of Nano Science and Technology Mohali; Dr. R S Sangwan, Center of Innovative and Applied Bioprocessing Mohali, Dr Rakesh Tuli, former director, National Agri-Food Biotechnology Institute Mohali, Professor Arun K Grover and Professor R K Sinha laid down the road map for functioning of MDIC as well as creation of similar industry-academia clusters in areas of engineering and biological sciences.

Nov 13, 2016

Source: timesofindia.indiatimes.com/city/chandigarh/Industry-holds-meet-with-academia/articleshow/55395455.cms

IICT to set up academic cell at Gitam varsity

CSIR-IICT

CSIR-Indian Institute of Chemical Technology (IICT) will set up an academic cell on GITAM University campus to take up research, teaching and training in selected and advanced thrust area in science and technology.

MoU to this effect was signed between the organisations at GITAM University here on Saturday. The CSIR-IICT has expertise in conducting R&D studies in synthetic organic chemistry, natural products chemistry, pharmacy, molecular modelling, lipid science and technology, polymers and functional materials, medicinal chemistry, bioinformatics, chemical biology and chemical informatics.

GU Registrar M. Potharaju and IICT Chief Scientist K. Bhanu Prakash exchanged the MoU documents in the presence of Vice-Chancellor M.S. Prasada Rao, Pro Vice-Chancellor K. Sivarama Krishna, Science Advisor N. Lakshmana Das and others.

The academic cell will facilitate the CSIR-IICT students and staff for their doctoral work and to collaborate with GITAM faculty for implementation of outreach activities.

Nov 13, 2016

Source: www.thehindu.com/news/cities/Visakhapatnam/iict-to-set-up-academic-cell-at-gitam-varsity/article9340309.ece

भारतीय रासायनिक प्रौद्योगिकी संस्थान में हिंदी व्याख्यान संपन्न



हैदराबाद, 11 नवंबर (स्वतंत्र वार्ता)। सीएसआईआर-भारतीय रासायनिक प्रौद्योगिकी संस्थान के भाषण कक्ष में “नैनो-21वीं सदी की महत्वपूर्ण

प्रौद्योगिकी” विषय पर हिंदी व्याख्यान आयोजित किया गया। इस अवसर पर अतिथि वक्ता के रूप में डॉ. डीडी ओझा, मुख्य वैज्ञानिक, जल

संसाधन मंत्रालय, जोधपुर को आमंत्रित किया गया। डॉ. एस.नसीमा, वरिष्ठ हिंदी अधिकारी ने अतिथि वक्ता का स्वागत किया तथा अतिथि का

परिचय दिया।

डॉ.डी.ओझा ने कहा कि नैनो प्रौद्योगिकी रसायन, इंजीनियरी, जैव प्रौद्योगिकी तथातथा अणु जैविकी का बिलक्षण सम्मेलन है। प्रकृति में भी हमें नैनो संरचनाएँ मिलते हैं, जैसे, डायटम-समुद्री शैवाल आदि। नैनो प्रणाली में अणुओं व परमाणुओं के स्तर पर कार्य किया जाता है। जैसे-जैसे हम पदार्थ के स्थूल रूप से सूक्ष्म रूप की तरफ जाते हैं पदार्थों के गुण धर्म में परिवर्तन आते हैं। नैनो प्रौद्योगिकी में मुख्यतया वे प्रक्रियाएँ आती हैं, जिनमें पदार्थ के एक अणु या परमाणु को अलग किया जाता है, साथ में लाया या विकृत किया जाता है। नैनो प्रौद्योगिकी की व्यापकता व विभिन्न क्षेत्रों में विकास निरंतर अनेक शाखाओं के साथ हो रहा है। अंत में डॉ. एस. नसीमा, वरिष्ठ हिंदी अधिकारी ने धन्यवाद प्रस्ताव दिया।



Delhi pollution set to spike in winter; blame Pakistan, Punjab, UP and more

CSIR-NPL CSIR-NEERI

A newly conducted study crowns Delhi as the pollution hotspot during the winter season. Winds that blow into the city, especially from Pakistan, Punjab and Haryana on one side and UP and Bihar from another, make it more pollution prone

The prime motto of the study was to understand the variations in the chemical compositions and physical properties of pollutants that hits Delhi from the dry and semi-dry regions depending upon the season

Soon after the post Diwali pollution calamity in the national capital, a newly conducted study crowns Delhi as the pollution hotspot during the winter season. Winds that blow into the city, especially from Pakistan, Punjab and Haryana on one side and UP and Bihar from another, make it more pollution prone. The study also said that 46 per cent of Particulate Matter (PM 2.5) – tiny toxic dust particles – blows into the national capital from the northern part of India and Pakistan and 30 per cent from UP, Bihar and Uttarakhand. The facts and figures relieved in the study contradicts the statement made by Union Environment Minister Anil Madhav Dave earlier this week, who said that Delhi was responsible for 80 per cent of pollution in the state.

The study was conducted by researchers Mohit Saxena, A Sharma, Saraswati, T K Mandal, S K Sharma, C Sharma from the National Physical Laboratory (NPL) and Priyanka Saxena from National Environmental Engineering Research Institute (NEERI).

Going further, this study also found that a massive 72 per cent of Delhi's wind during winters blows in from the northwest parts of India and Pakistan and the remaining 28 per cent from the Indo-Gangetic plains. The patterns of the wind blowing in summer, winters and monsoon are different which is why PM 2.5 travels, added the study.

“It is significant to mention that adjoining areas of Delhi are the industrial hubs, construction and agriculture zones, therefore these activities probably result in the inflow of a mixture of coarse and fine continental pollutant aerosols to the study area,” says the study.

The prime motto of the study was to understand the variations in the chemical compositions and physical properties of pollutants that hits Delhi from the dry and semi-dry regions depending upon the season. The samples used in the study was collected from NPL premises on Pusa Road, New Delhi between January 2013 and December 2014.

Earlier this year, NPL had also conducted a source apportionment study which showed that around 14 per cent of PM 2.5 in Delhi’s air is due to the massive biomass burnings. Pollution from Aerosols accounted for 21.3 per cent of PM 2.5 followed by vehicle emissions at 19.7 per cent and fossil fuel combustion at 13.7 per cent.

Nov 11, 2016

Source: www.financialexpress.com/india-news/delhi-pollution-set-to-spike-in-winter-blame-pakistan-punjab-up-and-more/443793/

CSIR-CSMCRI**Science fest at Central salt and marine chemicals research institute starts today**

TNN | Updated: Nov 10, 2016, 12.00 PM IST

Rajkot: A one-day public outreach science festival will be organized at the Central Salt and Marine Chemicals Research Institute (CSMCRI) in Bhavnagar on Thursday. This event is being organized in collaboration with VIBHA, Gujarat Prant. CSMCRI (Bhavnagar) is a constituent laboratory under the aegis of Council of Scientific and Industrial Research (CSIR), New Delhi.

The programme at Bhavnagar will be held as a prelude to the second India International Science Festival (IISF) being organized by the ministry of science and technology and ministry of earth sciences in New Delhi from December 7 to December 11. The theme of the event is 'Science for the masses'.

Dr Amitava Das, director, CSMCRI said that the aim of this event is to bring the research happening in the labs closer to the public and further enhance interactions between academia, research and development labs and industry.

"This science festival will spark scientific temper among bright students so that they opt for science as a rewarding career option, which in turn, will give boost to innovation and research within the country and will bring the industry closer to the research domains of the institute," he added.

The highlight of the event will be involvement of more than 175 science students and teachers from around 15 schools of the region. Scholars and faculty from science departments of universities, medical and engineering colleges have also been requested to participate in the exhibition.

The science students, who have been nominated by their respective schools, will also be permitted to visit a select few laboratories to understand and appreciate that research being done in the country is at par and no less with that happening in the developed world.

Two popular science lectures would be delivered by young scientists of CSMCRI. During this event, some school students and teachers will also be recognized for winning national/state level awards in the area of science and bringing laurels to the city.

TOI | Rajkot | Nov 10, 2016

CSIR-CSMCRI

આગામી ૧૦ તારીખે સેન્ટ્રલ સોલ્ટ એન્ડ મરીન કેમિકલ્સ રિસર્ચ ઇન્સ્ટિટ્યૂટ દ્વારા વિજ્ઞાન મેલો ભાવનગર વસીયો માટે



ભાવનગર ની સેન્ટ્રલ સોલ્ટ એન્ડ મરીન કેમિકલ્સ રીસર્ચ ઇન્સ્ટિટ્યૂટ દ્વારા ભાવનગર ની જન્મતા ને આમંત્રણ.

ભારતભર મા કુલ આવી ૩૮ સંસ્થા છે અને ગુજરાત ખાતે ભાવનગર માં, ૧૯૫૪ માં પંડિત જવાહરલાલ નહેરૂ નાં હસ્તે આ સંસ્થા નું ઉદ્ભાવન કરવા મા આવ્યુ હતું.

સી.એસ.એમ.સી.આર.આઈ મા કુલ ૮૦ વૈજ્ઞાનિક ધરાવે છે અને ૧૦૦ ટેકનીકલ કર્મચારીઓ.

સી.એસ.એમ.સી.આર.આઈ નો બિલકુલ નવો નવતર ધર્યાસ. તા.૧૦/૧૧/૨૦૧૬ નાં સેન્ટ્રલ સોલ્ટ માં એક વિજ્ઞાન મેલો ઘોષવામાં આવ્યો છે, જેમા તેમનાં દ્રશ બનાવા આવેલ કેમિકલ્સ નો ઉપયોગ કરવા કયા ઉદ્યોગ મા વપરાય છે તેના શી સુ ફાયદાઓ થયાં છે તે બાબીજ જાણકારી આ કાર્યક્રમ મા એમનાં સારવિસટ દ્વારા આપવા મા આવશે.

કદામ ભાવનગર વસીયો ને ફજુ સુધી આટલી જ બખર છે કે સેન્ટ્રલ સોલ્ટ ખાલી દરિયા નાં ખારા પાણી ને પીવા લાયક બનાવે છે, હા એક અરો આ સાચું છે પણ આ સીવાય આપકા ગામ મા આવેલી આ સંસ્થા ધણુ બધું બનાવે છે.

આ લેબોરેટરીએ સંશોધન ક્ષેત્રે ખૂબ મોટુ યોગદાન આપ્યું છે જેમ કે પીવાનું નું મીક્રુ પણી, ગ્રીન કેમેસ્ટ્રી,દરવાયો વનસ્પતિ ની ખેતી, ફોર્ટિફાઇડ મીઠાં ની ટેકનોલોજી ઇત્યાદિ.....

અને સવ થી વધુ મા જો આ લેબએ સિદ્ધિ ફાસલ કરી હોય તો એ છે પોટાશ પર ક્ષાયન મા થી સ્વદેશી પોટાશ ઉત્પાદન પર સંસ્થા ઝીણવટ ભર કામ કરી રહી છે.પોટાશ એ ખૂબ જ મહત્વ નું ખાતર છે, જે દેશ અત્યાદે સપુર્ણપણે આયાત કરે છે)

ડો. પરીમાલ ખોલે જણાવ્યું કે આ વિજ્ઞાન મેલા મા સેન્ટ્રલ સોલ્ટ એન્ડ મરીન કેમિકલ્સ રીસર્ચ ઇન્સ્ટિટ્યૂટ દ્વારા મુખ્ય સંશોધન પવૃત્તિઓ,પદર્શન અને નમુનાઓ દ્વારા લોકો ને માહિતગાર કરવા મા આવશે. આ કાર્યક્રમ મા આશરે ૧૫-૧૬ શાલાઓ નાં વિદ્યાર્થીઓ તમા શિક્ષકો ભાગ લેશે.

૧૦/૧૧/૧૬ નાં આપ આવો ને જ્ઞાન મેળવો અને જાણો કે આપકા વૈજ્ઞાનિક પણ બીજા દેશો નાં વૈજ્ઞાનિક ની સરખામણી માં કાલ ધારકા આગળ છે.

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શહેરમાં સેન્ટ્રલ સોલ્ટ ખાતે કાલે ઈન્ડિયા ઈન્ટરનેશનલ સાયન્સ ફેસ્ટીવલ

આવનગર, મંગળવાર
લોકો સુધી પહોંચવા માટે એક દિવસીય વિજ્ઞાન મેળાનું આયોજન શહેરના સેન્ટ્રલ સોલ્ટ એન્ડ મરીન કેમિકલ્સ રિસર્ચ ઈન્સ્ટિટ્યૂટ ખાતે તા.૧૦ નવેમ્બરના રોજ કરવામાં આવેલ છે. સી.એસ.આઈ.આર.-સી.એસ.એમ.સી.આર.આઈ. દ્વારા આ કાર્યક્રમનું આયોજન વિભાગ, ગુજરાત પ્રાંતના સહયોગથી કરવામાં આવી રહ્યું છે.

૧૫થી વધુ શાળાના સાયન્સના ૧૭૫ વિદ્યાર્થીઓ અને શિક્ષકો ભાગ લેશે

વિજ્ઞાન અને ટેકનોલોજી મંગલવ અને અર્ધ વિજ્ઞાન મંગલવ, નવી દિલ્હી ખાતે તા.૭-૧૧ ડિસેમ્બર દરમિયાન જે કાર્યક્રમ યોજાયા છે તેના ભાગરૂપે આવનગર ખાતે આ કાર્યક્રમ બીજા ઈન્ડિયા ઈન્ટરનેશનલ સાયન્સ ફેસ્ટીવલ (આઈ.આઈ.એસ.એફ.)નો પ્રારંભ કરવામાં આવી રહ્યો છે. આ કાર્યક્રમની વિષયવસ્તુ 'લોકો માટે વિજ્ઞાન' છે. આ આયોજન વિશે વિગતો આપતા સેન્ટ્રલ સોલ્ટના નિયામક ડી.અમિતાવ દાસે જણાવ્યું હતું કે, આ કાર્યક્રમ ઉદ્દેશ, રિસર્ચ લેબોરેટરીઓ તેમજ સેન્ટ્રલ સોલ્ટ એન્ડ મરીન કેમિકલ્સ રિસર્ચ ઈન્સ્ટિટ્યૂટની મુખ્ય સંશોધન પ્રવૃત્તિઓ, પ્રદર્શન અને નમુનાઓ દ્વારા લોકોને માહિતગાર કરવામાં આવશે. વિકસિત વિષયમાં કે દરમિયાન સંશોધન થઈ રહ્યું છે તે સમજાવવા માટે શાળાઓ દ્વારા તેજસ્વી વિજ્ઞાન વિદ્યાર્થીઓને લેબોરેટરીની મુલાકાત કરવા માટે પરવાનગી આપવામાં આવશે. આ સંસ્થાના યુવા વિજ્ઞાનીઓ દ્વારા બે પ્રખ્યાત વ્યાખ્યાનો વિદ્યાર્થીઓ સરળ રીતે સમજી શકે અને તેજસ્વી અભિજન કેળવી શકે તે માટે આપવામાં આવશે. આ કાર્યક્રમમાં દરમિયાન કેટલાક શાળા વિદ્યાર્થીઓ અને શાળાના શિક્ષકોને અને અન્ય મહાનુભાવો જેમણે રાષ્ટ્રીય, રાજ્ય સ્તર પુરસ્કારો જીત્યા છે અને શહેરને ગૌરવ અપાવવામાં યોગદાન માટે પુરસ્કાર એનાયત કરવામાં આવશે. આ કાર્યક્રમના બે મહત્વપૂર્ણ ઉદ્દેશ તેજસ્વી અભિજન તેજસ્વી વિદ્યાર્થીઓમાં કેળવવામાં આવશે અને તેઓ વિજ્ઞાનને એક લાભદાયી કારકિર્દી તરીકે સ્વીકારે જેથી દેશની અંદર નવીનીકરણ અને સંશોધન આગળ વધી શકે. બીજો ઉદ્દેશ એ છે કે સંશોધન ક્ષેત્રે આર.એન્ડ.ડી. લેબોરેટરી અને ઉદ્યોગો એક બીજા સાથે કામ કરી શકે અને વધુ સારી રીતે દુરોગામી પરિસ્થિતિમાં કામ કરે જે લોકોના જીવનમાં પરિવર્તન લાવી શકે. આ પ્રસંગે વિજ્ઞાનીઓ ડી.રામભાષુ, એન.પાઠકજી, અરવિંદકુમાર સંક્ષિપ્તના વિજ્ઞાનીઓ ઉપસ્થિત રહ્યા હતા.

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સીએસઆઈઆર-સેન્ટ્રલ સોલ્ટ એન્ડ મરીન કેમિકલ્સ રીસર્ચ
ઇન્ટીટ્યુટ (સીએસઆઈઆર-સીએસએમસીઆરઆઈ)
સંખ્યા: CSIR/CSMCRI/2016/02, www.csir.org

ભાવનગર ભારત આંતરરાષ્ટ્રીય વિજ્ઞાન મહોત્સવ (IISF-2016)
“લોહો માટે વિજ્ઞાન”

સીએસઆઈઆર-સીએસએમસીઆરઆઈ તથા વિજ્ઞાન ભારતી (વિજ્ઞાન ગુર્જરી, વિલા, ગુજરાત પ્રાંત) ના સંયુક્ત ઉપક્રમે ૧૦ નવેમ્બર ૨૦૧૬ (ગુરુવાર) ના રોજ લોહો સુધી વિજ્ઞાન નાં પ્રસાર હેતુ એક જાહેર કાર્યક્રમ “ભાવનગર IISF - ૨૦૧૬” નું આયોજન સીએસઆઈઆર-સીએસએમસીઆરઆઈ નાં પ્રાંગણ માં કરાયેલ છે. આ કાર્યક્રમ લોહો માટે વિજ્ઞાન તથા તેના વ્યવહાર માં પ્રયોગ નાં યોગદાન નું પ્રદર્શન તથા તેને જન સમૂહ માં લોકપ્રિય બનાવવાનાં હેતુ થી યોજાઈ રહ્યો છે.

“ભાવનગર IISF - ૨૦૧૬” એ ડિસેમ્બર ૨૦૧૬ દરમિયાન નવી દિલ્હી ખાતે યોજાનાર “ભારત આંતરરાષ્ટ્રીય વિજ્ઞાન મહોત્સવ” નો પૂર્વ પ્રાર્થનાવિહ કાર્યક્રમ છે.

(સંચોવક)
“ભાવનગર IISF - ૨૦૧૬”

Saurashtra Samachar | Nov 6, 2016

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Gandhinagar News: 11th November

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Saurashtra samachar, Bhavnagar: 10th November

Saurashtra Samachar: 12th November

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Times of India: 7th November (adv.)