

CSIR in Media



A Daily News Bulletin
13th February 2017

Mining instt exploring shale gas reserves

Lab Covered: CSIR-CIMFR

11th February 2017

The Central Institute for Mining and Fuel Research (CIMFR) has discovered shale gas in two areas in the Gondwana basin in Central India and Godavari basin.

The total shale gas discovered so far in the country in these two basins is estimated to be about 63 Trillion Cubic Feet (TCF). It is considered as one of the best sources of non-conventional natural gas.

Vinod Mendhe, scientist from CIMFR in Dhanbad, told TOI that shale gas is methane gas or natural gas that is trapped within shale formations. Shales are fine-grained sedimentary rocks that can be rich sources of petroleum and natural gas. The shale gas beds occur 400-3,000 meters below the earth surface in a stretch of about 200-600m thick beds in coal belts.

In 2006, CIMFR and ONGC had first carried out a project of shale gas exploration using a borehole reservoir technique. But in 2013, the coal ministry funded the project costing Rs22 crore. The new discovered reservoirs are now being explored using a consortium approach in which institutions like National Geophysical Research Institute, Hyderabad, and Coal India Limited will carry out characterization and potential studies of the Gondwana and Damodar basins.

"The project report for launch of commercial exploration is expected to be submitted by May this year," said Mendhe.

The project will cover Raniganj basin in West Bengal, the easternmost depository of Damodar valley and the Barmer basin in Rajasthan as well as Wardha valley, Godavari valley, Mahanadi and IB valley in Odisha.

Shale gas, which has about 95% of methane and 2% ethane gases, can be used practically everywhere where natural gas is used. It occurs in the fractured areas of sedimentary rocks speared from east to west and in central Indian regions.

Mendhe said developed countries, especially the US, have started mining shale gas in large scale. In fact, shale gas is rewriting the story of natural energy resources all over the world.

Published in:

[TOI](#)

Agreement for Swapping of Coal

Lab Covered: CSIR- CIMFR

9th February 2017

The Inter-Ministerial Task Force has recommended shifting of coal linkage of Gujarat State Electricity Corporation Ltd (GSECL) of about 1.2 Million Tonne from South Eastern Coalfields Limited (SECL) to Western Coalfields Limited (WCL), leading to annual savings in transportation cost of about Rs. 100 crore to GSECL. This was stated by Shri Piyush Goyal, Minister of State (IC) for Power, Coal & New and Renewable Energy and Mines in a written reply to a question in the Lok Sabha today.

The Minister further stated that apart from this, swapping of 1.3 MT coal linkage between GSECL and Sipat TPP of National Thermal Power Corporation (NTPC) has also been implemented with annual potential savings of Rs. 458 crore to GSECL. Presently, coal is supplied to GSECL against swapped quantities at the notified price of WCL.

The terms and conditions of rationalization of coal linkage like swapping at mine and port etc. are mutually agreed between NTPC and GSECL. The provision of Third party sampling and analysis at the loading end is available and the Central Institute of Mining and Fuel Research (CIMFR) is the third party for sampling and analysis.

The sampling process includes the number of samples, timelimit for analysis of samples and Referee sample analysis. Both the coal company and the coal consumer power utility equally share the cost of sampling and analysis at the loading end. The Referee sample analysis is done at a government laboratory, the Minister added.

Published in:

[Business Standard](#)

‘Work of generic drug manufacturers is true innovation’

Lab Covered: CSIR- IICT CSIR-CCMB

9th February 2017

At a time when the Centre is pushing for generic drugs availability, Nobel laureate Prof Kurt Wuthrich on Wednesday praised the Indian generic drug industry.

Speaking on Wednesday at the Centre for Cellular and Molecular Biology (CCMB), he said that the work of generic drug manufacturers is ‘true innovation’ because they ensure that poor people in developing countries have access to drugs that are as effective as branded drugs but are available at much cheaper rates.

Recently, in the Budget speech, Union Finance Minister Arun Jaitley spoke of government’s plans to amend the drugs and cosmetics rules to ensure availability of generic medicines. Prof Wuthrich raised the issue of science students lacking enough practical exposure in India and termed it is a major drawback of the Indian education system.

Prof Wuthrich, an expert in Nuclear Magnetic Resonance(NMR) spectroscopy methods for studying biological macromolecules was awarded the Nobel Prize in Chemistry in 2002.

During an interaction with some students at Indian Institute of Chemical Technology (IICT) Prof Wuthrich asked how many of the present students are working on NMR spectroscopy.

However, when he was asked as to how many students have actually operated a NMR Spectrometer, the number of hands that went up were less than 10. It was after this that the Nobel laureate noted that there needs to be enough equipment easily accessible for science students, keeping in mind India's emergence in the field of science, which he termed as outstanding.

The Nobel laureate visited IICT and Cellular and Molecular Biology in connection with platinum jubilee celebrations of Council of Scientific and Industrial Research (CSIR).

Published in:

[New Indian Express](#)

CSIR brings health friendly chulhas to rural women

CSIR

12th February 2017

Much to the relief of the common man, especially women living in rural areas, the Council of Scientific and Industrial Research (CSIR) has brought major improvement in the various stoves and chulhas, making them less harmful for health and more energy efficient. The CSIR innovations are part of the government's policy of bringing technology from lab to land to improve the quality of life of the people. Council of Scientific and Industrial Research (CSIR) has developed improved biomass chulhas like 'NEERDHUR' for household and community level and improved pine needle stove with significant lower emissions for biomass.

The Science and Research agency of the Government has also developed forced draught bio-mass fired cook-stoves with higher efficiency of about 35 per cent. This cook-stove can also operate a forced draught fan or charge a battery. For many of the stoves developed by CSIR, entrepreneurs are eligible for getting subsidy from Government. CSIR has also developed and installed 1-5 kW power 'Solar Power trees' in rural sectors and towns. It takes less land of only 4 sq ft for a 5 kW solar power tree as compared to 400 sq ft of land required in case of the conventional solar photovoltaic layout. According to official data, the Council has also developed and disseminated a number of technologies on water.

It has developed arsenic removal technology in villages of West Bengal. The Science and Research agency of the Government also deployed 'de-floridation plants' and variety of other water purification plants for community/domestic use in rural areas. CSIR is making efforts to provide sustainable/safe drinking water in drought prone and fluoride affected villages of Nalgonda and Ananatpur districts of Telangana and Andhra Pradesh. Specific plants based 'Phytorid technology' exclusively designed for the treatment of municipal, urban, agricultural and industrial wastewater has been deployed in several parts of country.

Published in:

[UNI](#)

Training held on 'Production of Vermicompost'

Lab Covered: CSIR - NEIST

11th February 2017

In all 56 farmers/villagers/beneficiaries from different parts of the state and North Lakhimpur, Assam attended a day-long training and awareness programme on 'Production of vermicompost', organized by CSIR-North East Institute of Science & Technology Branch Itanagar, at the institute's premises here on Friday.

Sc in Charge, NEIST Branch Itanagar, Dr. Jagat C Borah and resource person, Dr. B. C. Baruah delivered a lecture on 'Vermicomposting and commercial production of vermicompost' while, Senior Scientist, Dr. Chandan Tamuly assured to provide a business linkage of the vermicompost product in the market.

During the programme, the participants also visited the demonstration unit installed at the institute. Dr. Director, CSIR-NEIST Jorhat, D. Ramaiah, Co-ordinator, CSIR-NEIST Branch Itanagar, Dr. P. Sengupta and Sr. Scientist cum Principal Investigator Dipankar Neog were also present on the occasion.

Published in:

[Arunanchal Times](#)

For a safer trip on the ORR

Lab Covered: CSIR - CRRI

12th February 2017

The CRRI report says many motorists are driving at speeds over 200 kmph on a few stretches.

The Hyderabad Metropolitan Development Authority (HMDA) is gearing up to implement recommendations of the Central Road Research Institute (CRRI) to control accidents on the Outer Ring Road (ORR).

HMDA had assigned the task of conducting a study on the increasing number of accidents on ORR to CRRI last year. Accordingly, the institute has submitted a draft report and pointed out a few issues, besides suggesting remedial measures. Among the reasons, overspeeding was said to be the prime villain. The CRRI report, according to a senior HMDA official, says many motorists were driving at speeds over 200 kmph on a few stretches.

The other reasons for the accidents included ignoring lane discipline, wrong side driving, parking at unauthorised locations and drunk driving.

CRRI wanted HMDA to install metal crash barriers and rubber studs at sharp curves among other measures to bring down the number of accidents. To install these facilities, it will cost about Rs 40 crore and to begin with, efforts are on to implement those recommendations that do not require substantial investment, the official said.

This apart, CRRI has suggested installation of signboards, speed guns to capture images of overspeeding vehicles, reflective stickers and surveillance cameras. The recommendations were mostly focused on safety measures and not on the engineering aspects of ORR.

“They have also sought our remarks, if any, before finalising and submitting the final report, which will be out in a fortnight,” said the official.

HMDA has taken up a few measures to mitigate accidents on ORR in association with Cyberabad Police. Patrolling is intensified by providing a few patrolling vehicles equipped with different equipment like breath analysers, speed guns etc. The road safety audit by CRRI was part of these measures to ensure a scientific way of addressing road safety.

Notify speed limit as 100 kmph, HMDA officials told

Chief Secretary SP Singh directed HMDA officials to initiate measures for controlling overspeeding on ORR. During a meeting of the Unified Metropolitan Transport Authority here, Singh wanted authorities to notify the speed limit as 100 kmph on ORR. Special signboards indicating speed limits should be installed at strategic locations. Emphasis should be laid on providing safety measures at different locations that facilitate entry and exit on the ORR, he said.

Singh also said efforts were on to develop a mobile app, which would disseminate information on the traffic flow on different stretches in the city. Based on the traffic at different locations, authorities can divert the traffic accordingly and the same can be notified on the app, he said.

Published in:

[Telangana Today](#)

Lab Covered: CSIR - CBRI

12th February 2017

स्थापना दिवस

सीबीआरआई ने धूमधाम से मनाया 71 वां स्थापना दिवस

धरातल के लिए खरी तकनीक करें विकसित: चतुर्वेदी

अ.हि.ब्यूरो, रुड़की। केन्द्रीय भवन अनुसंधान संस्थान रुड़की का 71 वां स्थापना दिवस धूमधाम से मनाया गया। समारोह में भारतीय प्रौद्योगिकी संस्थान रुड़की के निदेशक प्रो. अजीत कुमार चतुर्वेदी ने बतौर मुख्य अतिथि व संस्था की अनुसंधान परिषद के पूर्व अध्यक्ष प्रोफेसर प्रेम कृष्णा ने विशिष्ट अतिथि के रूप में भाग लिया। कार्यक्रम की अध्यक्षता सीएसआईआर सीबीआरआई के निदेशक डॉ. एन गोपालाकृष्णन ने की। सीबीआरआई में स्थापना दिवस पर आयोजित कार्यक्रम को बतौर मुख्य अतिथि सम्बोधित करते हुए प्रो. अजीत कुमार चतुर्वेदी ने वैज्ञानिकों से कहा कि वे ऐसी तकनीक विकसित करें जो धरातल पर खरी उतरे।



स्थापना दिवस पर आयोजित कार्यक्रम के दौरान सीएसआईआर-सीबीआरआई के प्रकाशनों का विमोचन करते अतिथिगण।

सीबीआरआई द्वारा किये जा रहे अनुसंधान एवं विकास कार्यों को प्रशंसा करते हुए प्रो. एके चतुर्वेदी ने भारतीय प्रौद्योगिकी संस्थान रुड़की एवम केन्द्रीय भवन अनुसंधान संस्थान संयुक्त रूप से तब अधिक

मितव्यक्त से कार्य करने की इच्छा व्यक्त की। उन्होंने सीबीआरआई के विस्तृत फोकस क्षेत्रों के बारे में बोलते हुए कहा कि संस्थान सिविल विभाग के साथ अनेक विभागों में उत्कृष्ट कार्य प्रदर्शन करता है। इस

अवसर पर उन्होंने 'स्ट्रक्चरल हेल्थ मॉनिटरिंग-सिस्टम प्रोसेसिंग' विषय पर तकनीकी व्याख्यान भी प्रस्तुत किया। विशिष्ट अतिथि प्रो. प्रेम कृष्णा ने सभा को सम्बोधित करते हुए सीबीआरआई को अपने 71वें स्थापना दिवस पर बधाई दी। उन्होंने बताया कि वे स्वयं इस संस्थान की विकास, अनुसंधान कार्यों व योगदानों के साथी रहे हैं। उन्होंने कहा कि उन्होंने संस्थान को स्वतंत्र अनुसंधान से चुने हुए दिग्गज क्रैन्डिन्ट अनुसंधान कार्यों पर, अनेकों चुनौतियों का सम्मोहन करते हुए प्रगति करते देखा है। एन गोपाला कृष्णन ने अपने अध्यक्षीय सम्बोधन में 10 फरवरी 1947 को स्थापित हुए सीएसआईआर-केन्द्रीय भवन

अनुसंधान संस्थान के गौरवशील इतिहास पर प्रकाश डाला। संस्थान के मुख्य वैज्ञानिकों डॉ. एके मिश्रा ने कार्यक्रम का संचालन किया तथा मुख्य अतिथि प्रो. एके चतुर्वेदी का औपचारिक परिचय प्रस्तुत किया। संस्थान के मुख्य वैज्ञानिक यदुवेन्द्र पाण्डेय ने विशिष्ट अतिथि प्रो. प्रेम कृष्णा का औपचारिक परिचय प्रस्तुत किया। डॉ. अशोक कुमार ने धन्यवाद प्रस्ताव दिया। इस अवसर पर प्रकाशित सर्वश्रेष्ठ शोध लेख के लिए डॉ. अजय चौरसिया, डॉ. एनएम भंडारी, प्रो. एसके भट्टाचार्य तथा डॉ. प्रदीप भार्गव को संयुक्त रूप से 15 हजार का नकद पुरस्कार एवम् प्रशस्ति पत्र देकर सम्मानित किया गया।

Published in:

[Awam e Hind](#) Page 18

Lab Covered: CSIR - CBRI

11th February 2017

सीबीआरआई ने हर्षोल्लास के साथ मनाया 71 वां स्थापना दिवस

रुड़की, लोकसत्य। केन्द्रीय भवन अनुसंधान संस्थान का 71 वां स्थापना दिवस हर्षोल्लास के साथ संपन्न हुआ। इस अवसर पर बतौर विजिट अतिथि पहुंचे प्रो- अजित कुमार चतुर्वेदी ने भवन स्वास्थ्य प्रबोधन के क्षेत्र में मुख्य चुनौतियों जैसे दरारों, कंपन, दबाव, नमी व संक्षारण आदि के बारे में विस्तृत चर्चा करते हुए संकेत प्रसंस्करण के विज्वसनीय स्वास्थ्य की सटीक जानकारी दी।

स्थापना दिवस अवसर पर आयोजित कार्यक्रम को संबोधित करते हुए प्रो- प्रेमकृशणा ने कहा कि संस्थान की विकास, अनुसंधान कार्यों व योगदानों के वे स्वयं साक्षी रहे हैं। उन्होंने कहा कि स्वतंत्र अनुसंधान से चुने हुए दिजा केन्द्रित अनुसंधान कार्यों पर अनेकों



चुनौतियों का समाधान करते हुए देखा है। डॉ- एस- गोपालाकृष्णन ने अपने संबोधन में कहा कि 10 फ़रवरी 1947 को स्थापित हुए सीएसआईआर केन्द्रीय भवन अनुसंधान संस्थान के गौरवजाली इतिहास रहे हैं। संस्थान के वैज्ञानिक डॉ- ए के मिनोचा, वैज्ञानिक यादवेन्द्र पांडे ने यहां मौजूद मेहमानों का परिचय कराया। इस अवसर पर प्रकाशित सर्वश्रेष्ठ 'गोधा लेख' के लिये अजय चौरसिया, डॉ- एन-एम-

भण्डारी, प्रो- एस-के- भट्टाचार्य, डॉ- प्रदीप भार्गव को संयुक्त रूप से पुरस्कार स्वरूप 15 हजार रुपये की धानराजि प्रदान की गयी। समाज पर सर्वाधिक प्रभाव डालने वाली खोज के विकास के लिये डॉ- वी- सिंह, इज्वर्या, राकेज पासवान एवं मौ- रियाजुल रहमान को 20 हजार रुपये का नगद पुरस्कार दिया गया एवं प्रज्जित प= भी सौंपा गया। इस मौके पर सीबीआरआई, सीएसआईआर द्वारा प्रकाशनों का विमोचन भी किय।

Published in:

Lok Satya, Page 4

Also Published in:

11th February 2017

Rashtriya Sahara, Page 6

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Lab Covered: CSIR - IICT

10th February 2017

सीएसआईआर-भारतीय रासायनिक प्रौद्योगिकी संस्थान में हिन्दी कार्यशाला संपन्न



हैदराबाद, 10 फरवरी
(मिलाप ब्यूरो)

सीएसआईआर-भारतीय रासायनिक प्रौद्योगिकी संस्थान, हैदराबाद में तकनीकी व प्रशासनिक कर्मचारियों के लिए एक दिवसीय हिन्दी कार्यशाला का आयोजन किया गया।

आज यहाँ जारी प्रेस विज्ञप्ति के अनुसार, कार्यशाला के आरंभ में संस्थान के वरिष्ठ हिन्दी अधिकारी डॉ. एस. नसीमा ने प्रतिभागियों का स्वागत करते हुए कार्यशाला के उद्देश्य व महत्व की जानकारी दी। कार्यशाला के प्रथम सत्र में सुब्बाराव (हिन्दी अधिकारी, सीएसआईआर-एनजीआरआई) को कार्यशाला के प्रथम सत्र में अतिथि वक्ता के रूप में आमंत्रित किया गया।

सीएसआईआर की ईआरपी में हिन्दी में टिप्पण विषय पर प्रकाश डालते हुए सुब्बाराव ने कहा कि ईआरपी अर्थात् उद्यम संसाधन योजना में कार्य करने का अर्थ है, कागज मुक्त कार्यालय बनाना। ईआरपी में सृजित की जाने वाली प्रत्येक फाइल ग्रीन फाइल कहलाती है। ईआरपी में कार्य करने से कागज के नियंत्रित प्रयोग से पर्यावरण को हम सुरक्षित रख सकते हैं। उन्होंने ईआरपी में क्रमशः हिन्दी में कार्य करने के संदर्भ में जानकारी देते हुए यूनिकोड फॉन्ट को कम्प्यूटर पर एक्टिवेट करने सहित अन्य विषयों पर प्रकाश डाला।

कार्यशाला के दूसरे सत्र में कमालुद्दीन (सहायक निदेशक, हिन्दी शिक्षण योजना, हैदराबाद) को

अतिथि वक्ता के रूप में आमंत्रित किया गया। उन्होंने 'टिप्पण व मसौदा आलेखन' विषय पर प्रकाश डालते हुए कहा कि वार्तालाप की भाषा सहयोगात्मक एवं शिष्ट होनी चाहिए। लेखन में भाषा स्पष्ट होनी चाहिए। लेखन व्यक्तिगत आक्षेप व टीका टिप्पणी से मुक्त लेखन होना चाहिए। उन्होंने अंग्रेजी से हिन्दी टिप्पणियाँ बनाने के लिए आसान तरीके बताते हुए व्यावहारिक रूप से सभी कर्मचारियों से अभ्यास करवाया, ताकि कार्यालय के दैनिक कार्य में हिन्दी का प्रयोग सरलता से हो सके।

कार्यशाला के आयोजन में संस्थान के हिन्दी कर्मचारी साईं भवानी व वनिता कुमारी ने सहयोग दिया। वरिष्ठ हिन्दी अधिकारी डॉ. एस. नसीमा ने धन्यवाद ज्ञापित किया।

Published in:

Hindi Milap

Mudbanks in Kerala merits more studies: Scientists

Lab Covered: CSIR - NIO

13th February 2017

Mud banks (Chaakara in Malayalam) are a remarkable phenomenon that can make astonishing changes in the physical and bio-spheres of Kerala.

The observation was made by scientists attending the ‘National workshop on mud banks of Kerala: Status, issues and societal concerns’, organised here by the Council of Scientific and Industrial Research (CSIR)-National Institute of Oceanography, Regional Centre. The workshop, which concluded the other day, also recommended more scientific studies into the mud bank phenomenon.

“Observations that chemical reactions during Chaakara will help in preventing global warming are noteworthy and merits more studies. Scientists and common people should co-operate with each other. Researches and findings of scientific studies should be passed on to the public for the betterment of the society,” said Earth Commission chairman M Rajeevan Nair.

He said the National Geographic Department had launched a deep ocean mission and all oceanography scientists should extend their support to the project.

Mud banks are a specialised oceanographic phenomenon of calm, turbid waters with high biological production. It occurs along certain parts of the Kerala coast during the summer monsoon season, when adjoining coastal regions experience high wave activity. The mud banks of Kerala have socio-economic relevance as they support livelihoods of fishermen, besides protecting the beaches from erosion. They are usually formed during June-July and sometimes get extended till August.

The scientists further said an abrupt reduction in methane concentrations was noted during the mud bank period in comparison to the pre-mud bank period. Accordingly, shifts in the presence of methanogenic and methanotropic bacteria, before and after the development of mud banks, invoke further study to establish the role of bacteria in mud banks in trapping the greenhouse gases.

In 2014, the CSIR had initiated a multi-disciplinary study in collaboration with the Central Marine Fisheries Research Institute, involving meteorology, physics, chemistry, biology, geology and fishery aspects. The study had ruled out several theories like the ‘subterranean flow theory’ of mud bank formation.

“The formation of Alappuzha mud banks is caused by the activation of resident fluid mud located at the adjacent offshore (10-20m) regions by energetic waves, reinforced by upwelling. Presence of fluid muddy layer at the bottom attenuates the waves resulting in the formation of calm mud banks,” said the study.

According to it, the chemical characteristics of mud banks were found to be unique. “It was found that absorption of cations by phosphorus-rich montmorillonite in mud bank sediments was responsible for the sustenance of mud banks,” it said.

Published in:

[NewIndianExpress](#)

Lab Covered: CSIR - CMERI

February 2017

