

CSIR in Media



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6th January 2016

Neeri project is examining if Ganga has healing powers'

Lab Covered: CSIR-NEERI

6th January 2016

Konika Miglani

"Technology alone will not solve problems; social processes and structures will. We cannot take pride in our past without doing anything now," said Rakesh Kumar, director of National Environmental Engineering Research Institute (Neeri) on Wednesday.

He was speaking on 'Healing powers of Ganga: A scientific perspective' at a talk organized by Vigyan Bharti at Scientific Hall, Laxmi Nagar. Kumar said a Neeri team was comparing the qualities of Ganga water to two other rivers, Narmada and Yamuna. Speaking about the cultural practices regarding the Ganga, Kumar said 13 actions are prohibited in its sacred waters, like defecation, ablutions etc. Kumar said the research team is comparing sediment from various stretches of the river to those from the Narmada and Yamuna to see what difference these practices have had on the river. "We are analysing the viral genomes in sediment of the Ganga, and found different types of phages," said Kumar.

Kumar explained that the Ganga is a huge entity running over 2,525km (1,569 miles), rising in the western Himalayas in Uttarakhand, and flows south and east through the Gangetic Plain of North India into Bangladesh, where it empties into the Bay of Bengal. Describing it as the third largest river in the world by discharge, Kumar said nearly 26.3% area of the country is covered by the Ganga river, and 36 crore people in nine states are surviving on it since 47% of the irrigated land in India is in Ganga Basin.

Kumar said many non-governmental organizations and others hoping to save the Ganges have ignored the cultural influence of the Ganga and the myths associated with it, while only seeing the pollution as a matter of the people not caring about it. However, understanding the impact of religion is key to saving the Ganges, he said.

"Our challenge is to protect the river system," he added. The Neeri research aims to clarify whether the belief that Ganga river has medicinal properties is true. When asked about Neeri's work on the local Nag river, Kumar said since our headquarters is in Nagpur, we have chalked out solutions for some problems here.

Ajay Sancheti, member of Rajya Sabha, said in his speech, "Just like people are curious to learn about new things, it is also necessary to make them understand the healing power of Ganga."

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Source: bit.ly/2jiCcp7

Remote vehicle to help Mangrove Cell's Angria Bank Search

Lab Covered: CSIR-NIO

*6th January 2016
VIRAT A SINGH*

Maharashtra State Mangrove Cell has planned one of its biggest study missions in February to carry out an in-depth research of the Angria Bank -- a submerged plateau with rich coral reef diversity, located around 120 km west of Vijaydurg, Malvan, in the Konkan region. The project is being led by the National Institute of Oceanography (NIO), Goa.

The mission will get a major boost as a remotely operated vehicle (ROV) will be extensively used to study the nooks and corners of the bank. The ROV will be controlled from the mother ship Research Vessel (RV) Sindhu Sadhna, belonging to NIO.

Apart from NIO scientists, underwater photographers as well as marine biologists will be part of the expedition that could last 12-15 days.

The NIO carried out the first expedition, lasting six days, in 2014 and divers found corals in 10 sites, out of the 15 that were reported to be hosting extremely rich and diverse marine fauna and flora. NIO officials even affirmed that Angria Bank not only needs protection but also holds the potential to be an international diving site and could even be India's Great Barrier Reef.

"The second expedition promises to unravel more mysteries of the Angria Bank and information gathered on coral reefs, fishes and the Bank itself will help us plan and propose long-term conservation measures for its protection," said N Vasudevan, Chief Conservator of Forest (CCF) and Head of State Mangrove Cell, who added that the ROV is being procured by NIO from National Institute of Ocean Technology (NIOT).

Vasudevan added that the ROV will be playing an extremely crucial role as there can be regular monitoring and capturing of images underwater. "Humans can dive and stay in water for a particular time period and can capture limited data, but with an ROV, there can be an intense monitoring even at night and even those locations that cannot be accessed by divers can be studied," he said.

The Angria Bank expedition was being carried out under the Government of India-United Nations Development Programme-Global Environment Facility (GoI-UNDP-GEF) Project. NIO is the technical implementation partner.

Dr Subir Ghosh, Project Co-ordinator, said that during the second expedition to Angria Bank they plan to identify areas with a good biodiversity of flora and fauna and then mark them as permanent stations for studying long-term environment impact. According to experts, the threat to the marine life in Angria Bank also needs to be identified and brought to the notice of the government, along with its future tourism potential.

About Angria Bank

A submerged reef with rich coral diversity, it is 39 km in length and 17 km wide. The Angria Bank has good presence of cetacean fauna, represented by whales and dolphins; varieties of fishes including big angel fishes, anemone fishes, groupers, snappers, barracudas, jacks, glass fish, flying fish, pipe fish, leopard eels, parrot fish, goby, scorpion fish, trigger fishes, puffer fish and rays.

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DNA Source: bit.ly/2iSLN6V

CSIO device to make reading easier for visually challenged

Lab Covered: CSIR-CSIO

4th January 2016

Shimona Kanwar

Reading is set to become easier and faster for the visually challenged in India, with the Central Scientific Instruments Organisation (CSIO), Chandigarh, developing a portable device which will enable them to read non-Braille documents in Hindi and three other vernacular languages.

The device named 'Divya Nayan' scans any script and reads it aloud to the visually challenged. This device can also be used by the illiterate as well as elderly people with declining sight.

A prototype of 'Divya Nayan' was showcased at the platinum jubilee function at Vigyan Bhavan recently, inaugurated by Prime Minister Narendra Modi.

The portable device is based on the principle of contact scanning of a printed document and converting it into speech.

"The device is standalone, portable, completely wireless and uses open source hardware and software. The device can analyse a multi-column document and provide seamless reading," said Ashish Gaura, scientist at CSIO who has developed the device.

"It is capable of page, text and word-level navigation while reading and is faster than Braille-based reading. It is difficult for any software to read a newspaper as it cannot distinguish between column and row, but we have overcome this limitation," he said.

Its trial was done at the Institute for the Blind, Sector 26, in Chandigarh. "We have taken feedback from the visually challenged and made the device according to their needs," said Ashish.

"Existing devices can read in English and other foreign languages, but need a computer and are expensive. Our device costs around Rs 10,000 compared to a foreign language reader cost of around Rs 1.5 lakh," said Ashish.

Published in:

TOI Source: bit.ly/2iSLola

CSIR-NIIST to organise R&D industry meet

Lab Covered: CSIR-NIIST

5th January 2016

Around 100 industry experts and entrepreneurs from across the country will take part in an one-day R&D Industry meet here on Friday to identify the issues of mutual interest and forge alliances. Organised by the CSIR-NIIST, Thiruvananthapuram, the meet will provide a platform for one-to-one interaction between scientists, technologists and industry participants alongside demonstrations of relevant technologies/products/processes.

Participants will be from various sectors such as Agro & food processing, Energy and Environment, Chemicals & Materials and Biotechnology, a release said here. Chief Minister Pinarayi Vijayan will inaugurate the industry meet in which BJP MLA O Rajagopal and Shashi Tharoor MP are expected to attend, it said.

In line with the Union government's policies to focus the scientific & technological research to solve the issues of common man in various sectors, it is very much essential to have the interaction with industries and entrepreneurs at various levels, it said. On the sidelines of R&D – Industry meet, an exhibition of NIIST Technologies/Knowledge base is also arranged.

There will be a display of Products/Technologies/Processes developed in CSIR-NIIST, it said. National Institute for Interdisciplinary Science & Technology (NIIST), located at nearby Pappanamcode, is one of the 38 research laboratories of Council of Scientific Industrial Research (CSIR).

CSIR is a premier organization is engaged in scientific and Industrial R&D in aerospace engineering, Structural engineering, ocean sciences, Life sciences, metallurgy, chemicals, mining, food, petroleum, leather, and environment for the last 75 years. CSIR-NIIST has several national and international linkages bonded through R&D, academia and industry chains.

The institute has many high impact publications, potential patents and illustrious technology transfers to its credit. The proposed R & D Industry meet is expected to create a platform for the translation of knowledge and processes available at CSIR-NIIST to technologies and products, the release added.

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The Indian Express Source: bit.ly/2iXJS3t

NIIST seeks to forge link with industry

Lab Covered: CSIR-NIIST

*4th January 2016
T Nandakumar*

The National Institute for Interdisciplinary Science and Technology (NIIST), a constituent laboratory of the Council for Scientific and Industrial Research (CSIR), is scouting for industrial partners to transfer technologies in key areas.

In a move to identify potential partners, scientists at the institute are gearing up to showcase technologies developed by them. An R&D-industry interface to be held here on Friday will provide them a platform to recognise industry needs and respond to challenges.

NIIST is looking to forge tie-ups with small and medium enterprises in select areas of expertise. These include agricultural products and nutraceuticals, advanced materials and minerals, new generation pigments and nanomaterials, environmental remediation, industrial odour control, renewable energy, Ayurvedic drugs and process control.

“Our scientists have made remarkable progress in the development of technologies for value-addition of agricultural products, municipal waste management, sewage treatment, industrial effluent control, biomass energy conversion and solar cells. The R&D- industry interface is expected to create an environment to put these technologies to use, thereby benefiting the State,” says A. Ajayaghosh, Director, NIIST.

“Traditional industries in Kerala such as cashew, coir and coconut need technological solutions for environmental issues. Similarly, sustainable utilisation of regional resources like ilmenite also requires technological assistance,” Dr. Ajayaghosh says. “NIIST can also provide critical technological support for the proposed agricultural parks in all districts.”

The interactive meet on Friday is designed to provide an arena to showcase various technologies available off the shelf and highlight those in the pipeline. Industry can enter into MoUs for technology transfer or provide inputs for tailor-made solutions.

An environment-friendly process for upgradation of ilmenite is one of the technologies to be flagged at the meet. Earlier this year, NIIST had entered into an MoU with a Tamil Nadu-based company to transfer the critical technology which involves the conversion of ilmenite to beneficiated titanium feedstock with a 70 per cent reduction in acid consumption. The pilot plant at Bellary has entered the second stage of production.

More than 80 industry representatives from Kerala and other States are expected to attend the interactive meet, along with officials from the Kerala State Council for Science, Technology and Environment, KINFRA and KSIDC. “We have plans to organise the event every alternate year,” Dr. Ajayaghosh said.

Published in:

The Hindu

Source: bit.ly/2iSOI4Y

CSIR-CCMB signs MoUs with 4 start-up firms in Hyderabad

Lab Covered: CSIR-CCMB

4th January 2016

A Raju

The Council for Scientific and Industrial Research-Centre for Cellular and Molecular Biology (CSIR-CCMB) has signed a memorandum of understandings (MoUs) with 4 start-up firms namely Oncosimis, Virupaksha Life Sciences, Theranosis and Bioartis, wherein all these firms will work in coordination with the CCMB scientists at iHUB to develop new drugs for cancer, diabetes, diagnostic method for cancer and kits for detecting marine diseases respectively.

After setting up of the iHUB (innovation hub) last month at medical biotechnology complex in CCMB, the signing of MoUs with the start up firms is regarded as the next big step towards further strengthening the collaboration between the research institute and industry. Dr. Rakesh Mishra, director, CCMB said, “Recently we have signed up MoUs with four biology start up companies and exchanged licence agreement. As part of this agreement our scientists in collaboration with the industry experts will utilise the facilities of iHUB and translate research in to commercial products and help incubate start-ups to the next higher level.”

Explaining about recent MoUs signed between CSIR-CCMB, the director said that Oncosimis is focusing on production of biosimilars and as part of the agreement signed with the research institute, the company is looking forward for developing novel processes to prepare a number of cancer drugs. “Our collaboration with CCMB is a big step towards boosting our innovative research into new products. As a start-up we will utilise the facilities at iHUB and services of CCMB scientists and planning to come out new drugs for treating Cancer,” said Dr. Sudarshan Reddy from Oncosimis.

Similarly, Virupaksha Life sciences, is expecting to develop high value peptides of clinical importance and develop novel molecules for diabetes. Confirming the same Dr. Sudar Olli of Virupaksha Life Sciences said, “We are planning to use iHUB to develop novel molecules for diabetes.”

However, the other two companies viz., Theranosis and Bioartis are planning to develop novel point of care devices in cancer diagnosis and kits for diagnosing marine and animal source diseases.

The iHUB set up at CCMB is providing state-of-art facilities for start-up companies where in they could use the facilities as "plug and play" mode. “iHUB is an apt platform for the start-ups in Biology as it helps incubate and execute their business in healthcare,” said Dr Mishra.

CCMB is also planning organise several activities at iHUB which include scientist-industry interaction and training programmes to produce industry-ready human resource which would specifically benefit biotech industry.

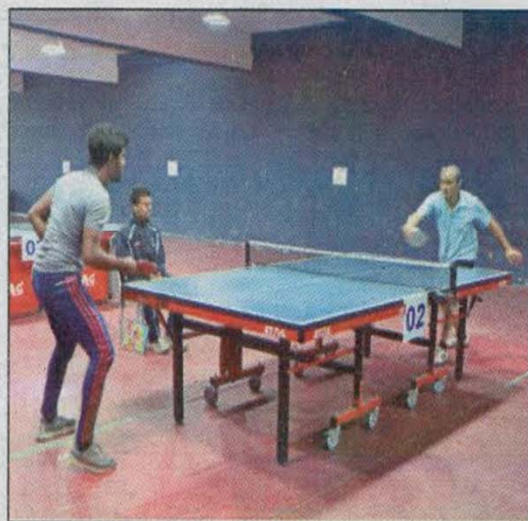
Published in:

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Lab Covered: CSIR-IIP

30th December 2016

48th Shanti Swarup Bhatnagar Memorial Tournament sees tough contests



**By OUR STAFF
REPORTER**
DEHRADUN, 29 Dec: In the
48th Shanti Swarup Bhatnagar

Memorial Tournament
(SSBMT) – (Indoors-Zonal)
2016 ongoing for the last two
days at CSIR-IIP Dehradun in



which the Institute and the
CSIR Sports Promotion Board,
New Delhi, are collaborating,
sportspersons belonging to the

ten laboratories of Council of
Scientific & Industrial Research
(CSIR), situated in different
parts of India, are competing

for the best place in the five
disciplines of Badminton,
Bridge, Chess, Table Tennis
and Carom.

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Garhwal Post, Dehradun

Lab Covered: CSIR-IIP

30th December 2016

शांति स्वरूप भटनागर स्मृति टूर्नामेंट शुरू

» एडीजी अशोक कुमार ने दीप प्रज्वलित कर किया उद्घाटन

DEHRADUN (27 Dec.) : सीएसआईआर के संस्थापक महानिदेशक डा. सर शांति स्वरूप भटनागर की स्मृति में परिषद की देशभर में फैली राष्ट्रीय प्रयोगशालाओं व संस्थानों के बीच 48वें शांति स्वरूप भटनागर स्मृति टूर्नामेंट का शुभारंभ किया गया. संस्थान के ऑडिटोरियम में आयोजित हुए शुभारंभ कार्यक्रम को एडीजी अशोक कुमार ने दीप प्रज्वलित कर उद्घाटन किया. इससे पूर्व प्रतिभागी दलों ने मार्च-पास्ट का शानदार प्रदर्शन किया.

180 खिलाड़ी कर रहे प्रतिभाग

संस्थान के डायरेक्टर डा. अंजन रे ने प्रतिभागी टीमों और मुख्य अतिथि सहित अन्य आमंत्रित अतिथियों का स्वागत किया. मुख्य अतिथि एडीजी अशोक कुमार ने कहा कि खेल शारीरिक मानसिक व आध्यात्मिक तीनों क्षमताओं का विकास करते हैं, नकारात्मकता से बाहर आने का सर्वोत्तम मार्ग है और एक लक्ष्य सामने होने के कारण अभिप्रेरित भी करते हैं. उन्होंने सभी टीमों को बेहतर प्रदर्शन

PIC: I NEXT



मार्च पास्ट करते खिलाड़ी.

के लिए शुभकामनाएं भी दी. कार्यक्रम के दौरान आयोजन समिति की अध्यक्ष पूनम गुप्ता, जसवंत राय, प्रशासनिक अधिकारी ने एक स्मारिका का भी विमोचन किया. कार्यक्रम का संचालन करते हुए परवेश चंद ने बताया कि टूर्नामेंट में टेबल-टेनिस, ब्रिज, शतरंज व कैरम की प्रतियोगिताओं का आयोजन किया जाएगा. जिसमें विभिन्न राज्यों की टीमों में 180 खिलाड़ी प्रतिभाग करेंगे.



दीप प्रज्वलित करते एडीजी.

Finally, Solution to fight deadly pest

Lab Covered: CSIR-IICT

1st January 2016

DENNIS MARCUS
MATHEW
Hyderabad

The battle of wits between scientists and the pink bollworm, one of the most dreaded pests attacking the cotton crop in India, has seen city scientists developing a new, and successful, technique that confuses the male pest, prevents him from mating, and in turn, stops multiplication of bollworm population.

The technique — one of the three developed as part of the Indian Institute of Chemical Technology's (IICT) Pheromone Application Technology — will be transferred to the Telangana government shortly, with the same to be used to help cotton farmers in the next season to fight the pink bollworm menace. The trick, according to BV Subbareddy, Senior Principal Scientist, IICT, is all about utilizing gossyplure, a sex pheromone or chemical released by female pink bollworms into the air to attract male moths.

The pheromone is the main ingredient in a chemical solution put in

Scientists develop technique that stops pink bollworm, which attacks cotton crop, from mating

traps in cotton fields, making the male believe his mate is somewhere near and thus confusing him. Any chance he had at mating or increasing his tribe is thus lost, he explains.

EXCLUSIVE

This PAT technique is not only effective in tackling pink bollworms, but will also help use of insect pheromones as pest management tools by coming up as an alternative to pesticides and genetically modified crops. Pink bollworms proved to be untouched by pesticides and kept attacking stems, roots and fruit of cotton in various States, including TS, AP, Gujarat and Maharashtra, Dr Subbareddy says. "This technique is cost effective as it costs Rs 6 and the pheromone trap below Rs 30," he says.

(SEE PAGE 2)

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