CSIR in Media

CSIR Touching Lives

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CSIR-CDRI

20th June, 2019

Colloquium recognises Dr Haq's contribution

THE LARGE BODY OF HIS WORK IS REFLECTED IN 130 PUBLICATIONS, 31 INDIAN AND INTERNATIONAL PATENTS AND THE MANY STUDENTS HE HAS MENTORED

PIONEER NEWS SERVICE ■ LUCKNOW

In the first faculty colloquium held on Wednesday at the Central Drug Research Institute, Dr Haq delivered a talk on 'Structure optimisation of small molecules: Opportunities in new drug discovery research.'

The Director, CSIR-CDRI, Professor Tapas Kumar Kundu, conferred the citation plaque and medal for the faculty colloquium on him on the occasion.

"The Faculty Colloquium recognises the scientific contributions of Dr Wahajul Haq who has had a long association with the Central Drug Research Institute, starting as a Junior Research Fellow in 1982 to his current position as head of the Department of Medicinal and Process Chemistry. In the interim he has also been visiting investigator to several international laboratories. D. Haq has made a significant contribution in process development for manufacture of peptide drugs," said a senior scientist of the Institute.

Dr Haq has made a significant contribution in the area of process development for the manufacture of peptide drugs, has provided consultancy for facility creation for peptide manufacturing and has transferred technology to the Indian pharmaceutical industry. The large body of his work is reflected in 130 publications, 31 Indian and international patents and the many students he has mentored.

"The Faculty Colloquium acknowledges the many administrative responsibilities undertaken by Dr Haq, including shifting to the present campus and setting up the labs, offices and other institute complexes and services. He also coordinated important events, including the visit of the Prime Minister in 2017 and the Standing Parliamentary Committee meeting in 2018," informed the media incharge, Sanjeev Yadav.

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The Pioneer

75 Years of CSIR Touching Lives

CSIR-CDRI

20th June, 2019

फ़ैकल्टी कोलिक्रियम प्राप्त करने के बाद गौरवान्वित महसूस कर रहा हूँ : डॉ वहाजुल हक

- June 20, 2019 - In साइंस

लखनऊ: सीएसआईआर-सीडीआरआई में बुधवार को आयोजित पहले फ़ैकल्टी कोलिक्रियम में, डॉ. वहाजुल हक ने "छोटे अणुओं का संरचनात्मक अनुकूलन: नई दवाओं की खोज संबंधी अनुसंधान में अवसर" विषय पर अपनि उपलब्धियों को साझा किया।

फ़ैकल्टी कोलिक्रियम के माध्यम सेडॉ. वहाजुल हक के वैज्ञानिक योगदान को मान्यता दी गई है, जिनका सीएसआईआर-सेंट्रल ड्रग रिसर्च इंस्टीट्यूट, लखनऊ के साथ लंबा संबंध रहा है, 1982 में एक जूनियर रिसर्च फेलो के रूप में संस्थान से जुड़ वर्तमान में औषधीय और प्रक्रिया रसायन विभाग के प्रमुख के रूप में अपनी सेवाएँ दे रहे हैं. अंतरिम रूप से, वह कई अंतरराष्ट्रीय प्रयोगशालाओं में अन्वेषक के तौर पर पर भी अपनी सेवाएँ देते रहे हैं.

डॉ. हक नैदानिक रूप से स्वीकार्य इम्यूनो-स्टिमुलेटर और पेप्टाइड वैक्सीन्स को विकसित करने के लिए साइटोकिन्स और थाइमिक हार्मोन से प्राप्त पेप्टाइड्स के डिजाइन और संश्लेषण में माहिर हैं. उन्होंने एनाल्जेसिक दवाओं के विकास केलिए रिसेप्टर सिलेक्टिव ओपिओइड पेप्टाइड्स को डिजाइन करने के साथ-साथ मादक दवाओं के दुरुपयोग से पीड़ित मरीजों के उपचार के लिएभी काम किया है. आपने कैंसर,डायबिटीज, परजीवी संक्रमणों के उपचार के लिए लक्ष्य-आधारित विशिष्ट पेप्टाइड्स, पेप्टाइड-मिमेटिक्स और छोटे हेट्रोसायक्लिक अणुओं के विकास के लिए पर बड़े पैमाने पर काम किया है. डॉ. हक ने पेप्टाइड दवाओं के निर्माण की प्रक्रियाके विकास के क्षेत्र में महत्वपूर्ण योगदान दिया है और अनेक फार्मास्युटिकल कंपनियों में पेप्टाइड निर्माण के लिए सुविधास्थापित करने के लिए परामर्श भी प्रदान किया हैऔर कुछ भारतीय फार्मास्युटिकल कंपनियों को इसकी तकनीक भी हस्तांतरित की है. उनके काम का एक बड़ा हिस्सा 130 प्रकाशनों और 31 भारतीय और अंतर्राष्ट्रीय पेटेंट के रूप में परिलक्षित होता है. उन्होंने अनेक शोध छात्रों के पीएचडी गाइडके रूप में मार्गदर्शन भी किया है।

Published in:
Dastak Times

CSIR-IICT

20th June, 2019

After 6-year gap, 700 awarded PhD at OU's 80th convocation

Times News Network

Hyderabad: Osmania University (OU) should commence university social responsibility ventures and teach children from underprivileged sections of the society English and computers, Telangana and Andhra Pradesh governor ESL Narasimhan said during OU's 80th convocation ceremony on Monday.

Close to 700 PhDs and 292 gold medals were awarded during the function, which was held after a gap of six years and for the first time after the formation of Telangana.

Addressing the convocation ceremony, Narasimhan, who is also the chancellor of all state universities in Telangana, urged OU's administration to ensure that students' skillsets match with industry requirements. "The university should implement courses and syllabi which are in tune with industry requirements. Today, there is a huge mismatch between academia and the industry," Narasimhan pointed out.

IICT director S Chandrasekhar felicitates a medallist even as governor ESL Narasimhan looks on during OU's 80th convocation on Monday

OU alumnus and director, Council of Scientific & Industrial Research, Indian Institute of Chemical Technology, S Chandrasekhar was the chief guest of the event.

"The days when finding a decent job used to be students' main objective are over. Universities and educational institutions are now promoting start-up culture, newer generations like yours choose to be job creaters, not seekers," he said. The OU administration imposed tight security at the venue, disallowing all, including media personnel, from carrying their mobile phones inside the auditorium.

Published in:

The Times of India

Membrane made out of clay and tea waste can clean toxic effluents

CSIR-NEIST 20th June, 2019

Scientists at CSIR- North East Institute of Science and Technology, Jorhat, have developed a ceramic membrane with the help of a mixture of potter's clay, stone dust and tea waste. They have tested the membrane on effluents from a textile unit and it could remove adsorptive dyes from waste water.

Ceramic filters and membranes are commonly used in several sectors like food and beverage, drug and chemicals, waste recovery and recycling industries. Ceramic membranes can withstand frequent cleaning, harsh operating environments and situations that require continuous flows of material. They can also be regenerated over many cycles and used for separation of both aqueous and non-aqueous solutions.

These filters are especially useful in petrochemical processing, where it is not possible to use organic membranes. The newly developed membrane has good thermal and chemical stabilities. It is capable of discolouring two commonly used dyes - methylene blue and Congo red -from water. The used membrane could also be regenerated by heating at 400 degrees for 30 minutes, without much loss of efficiency. Methylene blue is a toxic dye, while Congo red is a known cancer-causing agent.

"Potter's clay from Dhekial region of Golaghat district in Assam is traditionally used by rural artisans to prepare storage pitchers for sugarcane molasses. With the advent of modern packaging practices, the art and the tradition of pottery is dwindling. We wanted to see if we can use the clay for a modern application," explained Dr Rajib Lochan Goswamee, leader of the team, while speaking to India Science Wire.

While the potter's clay forms the base material providing plasticity, stone dust was used as a reinforcement material and tea waste provided porosity to the membrane. "Our aim was to use waste materials from neighbourhood as far as possible to reduce costs and at the same time ensure an efficient output," he added.

Besides Dr Goswamee, the team included Jitu Saikia, Susmita Sarmah, Jayanta J.Bora, and Bipul Das. The results of the study have been published in Bulletin of Material Science. The study was funded by Department of Science and Technology (DST).

Published in:
Business Line

Cancer cell detection 'dots' developed from coal in Assam

CSIR-NEIST 19th June, 2019

Costs one-twentieth of imported carbon quantum dots (CQDs).

A team of scientists in Assam has developed a chemical process that turns 'dirty' coal into a biomedical 'dot' to help detect cancer cells.

The team, led by Binoy Kumar Saikia and Tonkeswar Das, has applied for a patent for their chemical method of producing carbon quantum dots (CQDs) from cheap, abundant, low-quality and high-sulphur coals. CQDs are carbon-based nanomaterials whose size is less than 10 nm, or nanometre. "Carbon-based nanomaterials are used as diagnostic tools for bio-imaging, especially in detecting cancer cells, for chemical sensing and in opto-electronics. A few chemical companies in the U.S. and Japan have been manufacturing CQDs. What we have done is develop fluorescent carbon nanomaterials at one-twentieth the cost of imported CQDs," Mr. Saikia told *The Hindu* on Wednesday.

He is a scientist in the Polymer Petroleum and Coal Chemistry Group of the Council of Scientific & Industrial Research-North East Institute of Science and Technology (CSIR-NEIST) in eastern Assam's Jorhat, about 300 km from Guwahati.

The CQDs that the CSIR-NEIST team developed emit a bluish colour with "high-stability, good-conductivity, low-toxicity, environmental friendliness, and good optical properties". The finer details have been published in their study published in the *Journal of Photochemistry and Photobiology*.

"Our source material is abundant, low-quality Indian coal not directly suitable for thermal electricity production. Even if the selling price is twice our cost of production of ₹50 per ml, it will be much cheaper than the imported CQDs with market price of up to ₹2,000 per ml," he said.

Scientists said CQDs are futuristic materials whose demand in India has been increasing leading to a considerable volume of import. The CSIR-NEIST technology can produce approximately 1 litre of CQDs per day at a low cost to become an import substitute.
Other advantages of the process are the use of environment-friendly reagents and less water than methods elsewhere. The process can also be recycled with a manageable supply chain, the scientists said.

The other members of the team that developed the "blue fluorescent and biocompatible carbon dots derived from abundant low-quality coals" are H.P. Dekaboruah, Manobjyoti Bordoloi, Dipankar Neog, Jayanta J.Bora, Jiumoni Lahkar, Bardwi Narzary, Sonali Roy, and Danaboyina Ramaiah.

Published in:
The Hindu

CSIR-NISTADS

18th June, 2019

Dr Ranjana Aggarwal appointed Director of CSIR-NISTADS

Chandigarh, Jun 18 (UNI) Prime Minister Narendra Modi has appointed Dr Ranjana Aggarwal, Professor, Department of Chemistry, Kurukshetra University as the new Director of Council of Scientific and Industrial Research - National Institute of Science Technology and Development Studies (CSIR-NISTADS), New Delhi.

NISTADS is one of the CSIR Institutes under the Central Government and the Prime Minister serves as its President. Dr Harsh Vardhan, Cabinet Minister for Science and Technology is the Vice-President of the premier research body.

The appointment of Dr Ranjana Aggarwal has been made for a tenure of six years. This prestigious institute is devoted to a study of various aspects of interaction among science, society and state and exploring continuously the interface between Science, Technology and Society.

Prof Aggarwal obtained her B.Sc., M.Sc. and PhD degrees from Kurukshetra University and then after carrying out postdoctoral research on erythromycin biosynthesis at Cambridge University, UK. She joined her Alma mater in 1995 as lecturer. Subsequently, she worked in many well known European Labs such as Cambridge University, Trinity College Dublin, and University of Trieste. She is actively collaborating with scientists of USA, Spain and Ireland. Presently she is Professor of Chemistry and Director, Women's Studies Research Centre at Kurukshetra University.

Her research interests consists of design and synthesis of azaheterocycles, involving green reagents, of therapeutic interest as anticancer, anti-inflammatory, antimicrobial and photodynamic agents. Recently she has been granted a research grant of Rs 20 lakh by Haryana State Council for Science and Technology to develop new leads to treat cancer by targeting DNA.

Her research contributions have been acknowledged in the form of awards notably Commonwealth Fellowship (2003-2004), Dr. Basudev Banerji Memorial Award (2014) by Indian Chemical Society and Prof S S Katiyar Endowment Award (2015) by Indian Science Congress. As Director Women's Studies Research Centre she has is actively engaged in capacity building programs, promotion of Gender sensitization and skill development particularly among rural women.

Kurukshetra University Vice-Chancellor Dr Kailash Chander Sharma congratulated Prof Aggarwal and wished that under her guidance CSIR-NISTADS will set new milestones. He said that it is a great moment for Kurukshetra University as the first Women Director of CSIR laboratory, Dr Lakshmikantam was also an alumnus of Kurukshetra University. Incidentally, both these women scientists have obtained their PhD degrees from Chemistry Department of this University.

UNI DB JW1832

Published in:

UNI

CSIR-IICT

18th June, 2019

పురుగులపై వలపు వల!

కత్తెర, గులాబీ పురుగులపై లింగాకర్షక ఎరలే బ్రహ్మాస్త్రాలు

- కేంద్ర ప్రభుత్వ సంస్థ ఐ.ఐ.సి.టి రూపొందించిన లింగాకర్షక ఎరల (ఫెరమోన్ ల్యూర్‌ల)తో అద్భుత ఫలితాలు
- ఎకరానికి 8-10 లింగాకర్షక బుట్టలతో అదుపులోకి చీడపీడల సమస్య.. దిగుబడి నష్ట నివారణతో పాటు 50% తగ్గిన రసాయనిక పురుగుమందుల వాడకం
- పత్తి, వరి, మొక్కజొన్న, చిరుధాన్యాలు, వంగ, చెరకు, నిమ్మ, వేరుశనగ, కూరగాయలు, పండ్ల తోటల్లో చెలరేగే 20 రకాల జగమొండి పురుగులకు చెక్
- ఎక్కువ మంది రైతులు వరుసగా మూడేళ్లు లింగాకర్షక ఎరలు వాడితే ఆయా పురుగుల పీడ విరగడ
- రైతులకు ఉచితంగా లింగాకర్షక ఎరల సరఫరాకు సికింద్రాబాద్ తార్నాకలోని ఐ.ఐ.సి.టి.లో ఏర్పాట్లు

20 రకాల పురుగులకు ఎరలు

పత్తిలో గులాబీ రంగు పురుగును అరికట్టడానికి పంట 60వ రోజు నుంచి 120 రోజుల వరకు ఎర వేయాలి!

కత్తెర పురుగు(ఫాల్ ఆర్మీ వార్మ్)ను అరికట్టడానికి విత్తనం వేసిన రోజు నుంచే ఎరవేయాలి!

లింగాకర్షక ఎర పనిచేసేదిలా..

ఉచితంగా లింగాకర్షక ఎరల పంపిణీ

subbareddyiict@gmail.com

Published in:
Sakshi

BWSSB approaches IISc., CSIR-SERC to study reason for accident

CSIR-SERC

17th June, 2019

Three engineers died after falling from a height of almost 100 feet at an under-construction STP

Terming Monday's accident one of a magnitude never seen before under its jurisdiction, the Bangalore Water Supply and Sewerage Board (BWSSB) has approached experts in the Indian Institute of Science, Bengaluru and CSIR- Structural Engineering Research Centre in Chennai, to study the reason for the accident. Three engineers succumbed to injuries after falling from a height of almost 100 feet as the under-construction roof collapsed along with wet concrete after the scaffolding gave way.

Speaking at a press conference later in the day, BWSSB Chairman Tushar Girinath said, as per the design, the contractor had to construct four digesters to digest bio-solids and to produce gas. Out of the four digesters, the roof of one digester had been cast. On the fourth digester, work of pouring concrete of 65.5 cubic metre was under way when the accident occurred.

"On Monday, since 5 a.m., the concreting work was being carried out. At 11 a.m., around 95% of pouring of concrete was complete when the roof collapsed when the scaffolding underneath gave way. As a result, the wet concrete along with the scaffolding came down. Three engineers were on the roof when the incident happened. They died after a fall from a height of almost 100 feet," he said. He further said that the BWSSB is constructing similar STPs (150 MLD capacity) in other parts of city, including for KC Valley.

Action against the contractor

He said action will be taken against the contractor for lapses.

"We will conduct a probe to find out the cause of the accident and why the scaffolding collapsed. The same contractor had set up scaffolding for the first digester. The engineers who died were engaged by the sub-contractor to check the quality of work," he said.

Mr. Girinath said, as per the contract agreement, the contractor is liable to pay compensation to the deceased as well as the injured. If the contractor fails to do so, the BWSSB would compensate them and collect the same from the contractor later.

Three BWSSB engineers suspended

After the incident, the BWSSB suspended three of its officials on the charge of dereliction of duty. They are Executive Engineer C.M. Venkatashiva Reddy, Assistant Executive Engineer Mohammed Hanif Yatnati and Assistant Engineer K.V. Bhagyalakshmi.

Mr. Girinath said that the suspended officials should have been present when the construction work was happening and make sure that the work was as per the set standards.

BWSSB to study condition of 51 overhead water tanks

After the incident, the BWSSB has decided to study the conditions of 51 overhead water tanks in the city. A majority of the tanks built by the erstwhile city municipal council on the outskirts of city were added while extending the BBMP limits.

The BWSSB has already identified two tanks, which are in a dilapidated condition, for demolition. "Half of the overhead tanks are not in use. There is a need to study these structure to avert any kind of untoward incident," said Mr. Girinath.

Published in:

The Hindu

75 Years of CSIR Touching Lives

CSIR-IHBT

16th June, 2019

गुड न्यूज

आईएचबीटी के वैज्ञानिकों ने सगंधित फलों की खेती करने को किसानों को किया प्रोत्साहित

मंडी तक पहुंची अरोमा मिशन की महक

कार्यालय संवाददाता—पालमपुर

हिमालय जैवसंपदा प्रौद्योगिकी संस्थान द्वारा सगंधित फूलों की खेती के प्रोत्साहन को लेकर शुरू किए गए मिशन अरोमा की महक जिला मंडी के गांव तक पहुंची है। आईएचबीटी के वैज्ञानिक डा. सनत सुजात सिंह व डा. राकेश कुमार ने पांच सदस्यीय टीम सहित जिला मंडी के गांव शिलो, पंचायत शिलिबागी, तहसील थुनाग व घाट पंचायत, तहसील बालीचौकी में करीब सौ किसानों को सगंधित गुलाब, लैवेंडर, रोजमेरी, जंगली गेंदा, मुस्कवाला के गुणों, संरक्षण, खेती, उत्पादन, विपणन एवं मूल्यवर्धन के बारे में जानकारी उपलब्ध करवाई। किसानों को बताया गया कि सगंध फसलें जंगली जानवरों द्वारा किए जाने वाले नुकसान से सुरक्षित होती हैं व पानी की उचित सुविधा उपलब्ध न होने के कारण सूखा ग्रसित क्षेत्रों के लिए उपयुक्त फसलें हैं। इन फसलों कि खेती द्वारा परंपरागत फसलों की तुलना में दो गुना से भी अधिक शुद्ध लाभ अर्जित किया जा सकता है। किसानों को सगंधित फसलों के तेल निकासी यंत्र के बारे में भी बताया गया। आईएचबीटी के निदेशक डा. संजय कुमार के अनुसार यदि किसान समूह बनाकर एक संस्था का गठन करें और सगंधित फसलों की खेती करें तो इस क्षेत्र के किसानों को तेल विपणन के लिए संस्थान द्वारा एक आसवन इकाई स्थापित की जा सकती है जिसका लाभ किसान उठा सकते हैं। किसानों को अवगत करवाया गया कि ये सगंधित पौधे संसार में विभिन्न प्रकार के इत्र उद्योग, उच्च मूल्य सौंदर्य प्रसाधन, दवा उद्योग पेय, खाने की चीजों में, मिष्ठान में, अरोमा थैरेपी आदि उद्योगों में उपयोग में लाए जाते हैं व इनकी वैश्विक मांग निरंतर रूप से बढ़ रही है तथा ये सगंधित फसलें व्यावसायिक दृष्टिकोण से महत्त्वपूर्ण हो गई हैं। किसान इन फसलों को वैकल्पिक रूप से उगाकर अतिरिक्त आय अर्जित कर सकते हैं। इस क्षेत्र के किसानों को संस्थान की ओर से जंगली गेंदे की उन्नत प्रजाति 'हिमगोल्ड' का 10 किलोग्राम बीज निःशुल्क उपलब्ध करवाया गया जिसकी खेती कर किसान सगंधित तेल विभिन्न उद्योगों में विक्रय कर आय अर्जित कर सकता है।

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Soon, walk plans for 22 locations in Capital

CSIR-CRRI

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The Delhi Development Authority (DDA) on Friday approved a policy for enhancing walkability in the city. The agency will begin with preparing area-specific walk plans — a key component of the policy — for 22 locations. Key features of the policy include timebound implementation of area-specific 'walk plans', a centralised city-wide monitoring system, a mobile application to give information about walking and a 'walk Delhi' coordination and monitoring committee. The policy will now be sent to the Union housing and urban affairs ministry for notification. Walk plans will be prepared for areas such as ITO junction, all ISBTs, INA market, Karol Bagh, Nehru Place, Bhikaji Cama Place among others. "We will rope in consultants to prepare a detailed walk plan for 22 locations, which will be taken up on pilot basis. This is a major step towards improving the civic infrastructure and making it pedestrian friendly," said DDA vice-chairman Tarun Kapoor. The policy focuses on integration of walkability into various policies and projects, using technology for preparing walking tours, providing barrier-free pathways, pelican crossings near schools and major pedestrian crossings and earmarking multi-utility zones (MUZs) to accommodate street vendors and other public activities. Urban development experts welcomed the move but cautioned that the policy should not be limited to making pavements accessible. "Delhi is the first city in the country to have a policy for walkability. It is a step in the right direction. But its smooth implementation must be ensured. Making public spaces walkable is the essential part of urban mobility. But we need to look beyond making pavements accessible and making the streets safe by

installing CCTVs. There is a need to ensure more eyes on the road, better illumination etc," said Sarika Panda Bhatt, co-founder, The Raahgiri Foundation and executive director, Nagarro. A senior DDA official aware of the development said the walk plan will encompass a 500-metre influence zone around each location. As per the policy, "walking is the dominant mode of travel for nearly 77% of urban poor". Mukti Advani, senior scientist at CSIR-CRRI, said, "It is a good move. But instead of stretches, areas should be taken up. There is a need to make the stretches between residential areas and transit nodes walkable. Only then people will be encouraged to walk."

Special Purpose Vehicles (SPVs) may be created to ensure smooth implementation of the policy, officials say. "The Delhi Traffic Police will set up a digital surveillance and monitoring system with centralised control room to enforce pedestrian-centric rules. A 'Walk Delhi' coordination and monitoring committee will vet plans prepared by various agencies ," the official said.

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