





NEWS BULLETIN

16 TO 20 SEPTEMBER 2021





Compiled by Science Communication and Dissemination Directorate (SCDD), CSIR, Anusandhan Bhawan, New Delhi



CSIR-NAL has provided significant value added inputs to all the Indian national aerospace programmes



20th September, 2021

CSIR-National Aerospace Laboratories in Bengaluru is the only government aerospace Research and development laboratory in the country's civilian sector. CSIR-NAL is a hightechnology oriented institution focusing on advanced disciplines in aerospace.

CSIR-NAL has provided significant value added inputs to all the Indian national aerospace programmes. It has developed many critical technologies for the strategic sector and continues to support the mission-mode programmes of the country under Aatmanirbhar Yojana. Director of National Aerospace Laboratories Jitendra Jadhav spoke exclusively to AIR News on their initiatives to build civilian aircrafts within the country.

CSIR-NAL's mandate is to develop aerospace technologies with strong science content, design and build small, medium sized civil aircraft, and support all national aerospace programmes.







Kurukshetra university to honour four scientists with Goyal Awards



20th September, 2021

Kurukshetra University has chosen four eminent scientists for the coveted Goyal Awards.

According to the varsity management, Prof NK Mehra, former dean (research) of AIIMS, New Delhi, Prof A Ajaya Ghosh, director of CSIR-NIIST, Thiruvanthipuram, Prof Shyam Sundar, professor of medicine, head of the department of medicine at Institute of Medical Science, BHU, Varanasi, and Prof Rohini Godbole of IISc, Bangalore, will be receiving the awards.

Kurukshetra University vice-chancellor Prof Som Nath said these scientists have made a

great contribution in areas of applied sciences, chemical sciences, life sciences and physical sciences respectively. Goyal Prizes were established by late Ram S Goyal, an NRI settled in USA in 1992, and each prize consists of a medal, a citation and ₹2 lakh cash.







Lt Governor addresses valedictory session of one day workshop on **CSIR** initiatives for Science & Technology led development in J&K

CSIR-IIIM, CRRI, NEERI

19th September, 2021

Lieutenant Governor Manoj Sinha today addressed the valedictory session of one day workshop on CSIR initiatives for Science & Technology led development in J&K UT, inaugurated by Dr. Jitendra Singh, Union Minister of State for Science and Technology, Earth Sciences, and DoPT at SKICC here. While inaugurating the © www.5DariyaNews.com workshop Dr. Jitendra Singh said that as every sector is increasingly becoming dependent on technology, awareness among stakeholders is essential for optimum outcomes. "Science & Technology is the priority sector of Prime Minister Narendra Modi and under his dynamic leadership there is a visible change in this field", Dr. Singh added. Speaking on the occasion, the Lt Governor expressed gratitude to Sh Jitendra Singh, for bringing together the scientists of the premier institutes of CSIR, and taking initiative for accelerating J&K's development through the intervention of science and technology. The Lt Governor observed that the impressive deliberations and brainstorming on the implementation of Science and Technology interventions will be a big step towards making J&K a modern, safe, self-reliant and prosperous UT. "Technology is evolving at an ever-faster pace today. Science and innovation have huge power to meet the new demands in agriculture, environment, industries & even building affordable housing in rural areas. With right interventions, we will lead J&K on the path of development and prosperity", he added. The Lt Governor said that it is our responsibility to unleash the long-repressed creativity and business drive of the people and that can only happen with enhanced contacts between CSIR scientists and the common masses. "The technologies developed by CSIR will be implemented in Jammu and Kashmir to maximum possible extent so that works like Purple revolution of Lavender cultivation under the Aroma Mission can be implemented in other







areas across the UT", he added. Recalling his recent meeting with Dr. Shekhar C. Mande, DG-CSIR, and Dr. D. Srinivasa Reddy, Director, CSIR-Indian Institute of Integrative Medicine, the Lt Governor said that he had asked them to organize a brainstorming on identifying the technologies available with CSIR for their implementation in the J&K.Terming lavender cultivation as Purple Revolution of Jammu and Kashmir, the Lt Governor said that it has

happened with the help of science and technology. Lauding the efforts behind these initiatives, he hoped that through such interventions of science and technology, not only will we get effective control over various problems in the villages and cities but also convert it into an opportunity for the development of J&K.

The Lt Governor observed that the speed with which the technology is changing and the ease with which it is available; will make any region socially and economically progressive with effective implementation." I am reminded of the anti-gas cloth, one of the inventions of CSIR founder Dr. Shanti Swarup Bhatnagar. The one invention saved so many lives during World War II. Dr. Bhatnagar always emphasized on the practical utility of science. From the birth of the oil refinery to the development of manganese ore, it was all possible because of him, since he passed the technology from the lab to the field and brought about revolutionary changes. I hope that the same legacy will be carried forward", added the Lt Governor. The Lt Governor urged the experts to look at the challenges specific to Jammu & Kashmir in the areas like agriculture, infrastructure, waste management, industrial development, ecology conservation, urban planning, etc due to its unique geo-climatic conditions. While referring to National Environmental Engineering Research Institute's efforts for the revival of three completely disappeared lakes in Bangalore, he asked the concerned to explore if the same, cost-effective technology can be implemented in lakes like Dal, Wular, Jhelum, Nageen. He mentioned about a recent initiative of CSIR and Central Road Research Institute (CRRI) in collaboration with IIT Hyderabad and Intel, leading to a solution-driven by Artificial Intelligence, which could reduce road accidents substantially. He called upon the CSIR scientists to work in the areas like recycling of the material used in the construction of roads, and Cold Mix Plant based technology instead of Hot Mix Plant for longer life of roads in regions like Jammu and Kashmir. "We also need scientific interventions in rural housing, food technology, processing and value addition of medicinal and aromatic crops", he added.



While quoting former Prime Minister Bharat Ratna Atal Behari Vajpayee, the Lt Governor said that those associated with science and technology should work closely with the craftsmen, artisans of the lower level and help them achieve the full potential of their natural creative skills. He also quoted Hon'ble PM Sh Narendra Modi saying that science and technology

should help address the issues of the poorest. Since 70 percent of the J&K's population is dependent on agriculture and more than 4 lakh women are associated with self-help groups, besides a large population associated with the handicraft sector, if we get the scientific and technological support in these sectors, we will be successful in taking J&K in the direction of rapid development, improving common man's life, he said. "What CSIR has done so far in Jammu & Kashmir, I consider it as a huge scientific breakthrough for the UT. Now it is time to divide the different scientific and technological properties for a larger impact on growth in different sectors, concluded the Lt Governor. On the occasion, Secretary, DSIR and Director General, Council of Scientific & Industrial Research, Dr. Shekhar C Mande delivered a presentation of Science & technology led initiatives. He gave a brief about the support to infrastructure development in J&K under the Purple (lavender) Revolution in J&K through floriculture activities.Dr. Shekhar C. Mande, DG- CSIR; Dr. D. Srinivasa Reddy, Director, CSIR-Indian Institute of Integrative Medicine, Jammu; Dr. Ritesh Vijay, Director, CSIR-NEERI besides team of Scientists of CSIR participated in the one day workshop. Dr. Arun Kumar Mehta, Chief Secretary; Shri Alok Kumar, Principal Secretary to Government, Science & Technology Department besides vice-chancellors of J&K Universities, senior scientists, professors and officers from UT administration were also present on the occasion.







136 hectares under flower cultivation in Chamba



19th September, 2021

Around 136 hectares in Chamba district have been brought under floriculture and 400 quintals of wild marigold flower seed have been made available to farmers and orchardists for the purpose. Sanjay Kumar, Director of the Institute of Himalayan Bioresource Technology (IHBT), Palampur, had a video conference with Deputy Commissioner DC Rana yesterday. He said



that necessary steps were being taken to promote flower production and 'heeng' cultivation in the district.

The Horticulture Department and the district rural development agency had been directed to inspect 13 units set up for the distillation of marigold flowers at different places so that farmers did not face any problem, Rana said.

He said that more than eight quintals of marigold flower seed had been made available to the farmers and orchardists in Bharmour, Tissa and Salooni. Besides, about 500 'heeng' plants had also been given to the farmers in the Holi tribal region.

The Deputy Commissioner reviewed the work being done regarding 'heeng' cultivation in Pangi tribal subdivision and said that 1,000 plants received from the IHBT were being sent to the Pangi valley soon.

For the cultivation of lavender, farmers had been selected in Churah. A requisition for 10,000





saplings was being sent to the IHBT during the current season. Rana directed the department concerned to take appropriate action in view of the possibility of the cultivation of kala zeera, walnut and 'thangi' (hazelnut) in the Pangi valley for commercial purpose.







Y chromosome plays vital role in evolution, finds CCMB



18th September, 2021

HYDERABAD: A study conducted by the CSIR-CCMB has given fresh insights into the role played by the Y chromosome in the DNA. The study done by a team of researchers headed by Professor Rachel Jesudasan, Advisor (Research) at the Department Genetics of Osmania University, throws light on novel regulatory functions of the Y chromosome. Published in BMC Biology, the research suggests that beyond determining the gender of a person, the Y chromosome also regulates genes on other chromosomes involved in male reproduction.

According to scientists from the CCMB, the Y chromosome is known to be the maledetermining chromosome. It is smaller in comparison to the X chromosome – its partner. It

was not known to have any function except sex determination.

"Our previous studies had shown that sex and species-specific repeats on the Y chromosome regulate a reproductively important protein-coding RNA transcribed from chromosome number 1. Along with this study, there are reports of interaction between the Y chromosome and other chromosomes. Thus, consolidating the two studies, we see a more pervasive regulation of genes associated with reproduction by the Y chromosome," said Prof Jesudasan.

"As the species evolve, these repeats also co-evolve. Gradually, they are no longer able to regulate the reproduction of the species. Thus, it appears that these repeats are at the fulcrum of species identity and evolution," she added. The new study is crucial, as generally, the DNA sequences on the Y chromosome are by and large present in multiple copies and very few of them code for proteins. Given no obvious function, most parts of DNA of Y chromosome were considered junk.

Published in:

The New Indian Express





CSIR-IHBT

18th September, 2021





जानते हैं कि बांस अब खाने की वाली में भी शामिल हो रहा है। बांस का अचार तो बनता था, अब इससे बने नुहल्स, कैंही और पापड़ का भी हिमालय जैव संपदा प्रौद्योगिकी संस्थान पालमपुर में बनाया गया बैंबू हाउ स 🔍 जागरण जायका ले सकते हैं। इस संस्थान में 10 वर्ष पहले बांस का जलता है। इससे ऊर्जा व लकड़ी के हिमालय जैव संपद्म प्रौद्योगिकी संरक्षण में भी मदद मिलेगी। संस्थान संग्रहालय बना था। इसमें दरवाजे, आइएचबीटी) पालमपुर संस्थान ने बांस से खाद्य पदार्थ भी तैयार में बांस की मदद से धागा बनाने का खिड्कियां, फर्श और छत सब बांस किए हैं। ये पदार्थ स्वादिष्ट तो हैं ही, कार्य चल रहा है। यह कार्य लगभग का है। यह आज भी वैसा ही लगता है जैसे शुरुआती दौर में था। इसे इनमें प्रोटीन, कैल्शियम व फाइबर भी अंतिम चरण में है। मिलते हैं। खाद्य पदार्थों के अलावा आइएचबीटी कई वर्ष से बांस हाउस आफ बैंब कहते हैं। विज्ञानियों सहित कई पदार्थ तैयार किए जा पर शोध कर रहा है। बांस की कई के अनुसार बांस की मदद से कपड़ा, विज्ञानियों ने बांस का कोयला भी तैयार किया है। यह कोयला जल्दी प्रजातियां तैयार करने के लिए मशहूर लकड़ी की टाइल, शैंपू, प्लाई बोर्ड कार्य हो भी चुका है।

है। कैंडी प्री तरह बांस से बनाई गई है। फाइबर से शरीर स्वस्थ रहता है। हिमाचल में बांटे 50 हजार पौधे आइएचवीटी ने राष्ट्रीय वांस मिशन के तहत अब तक हिमाचल में करीब 50 हजार पौधे किसानों को वितरित किए हैं। संस्थान में बांस की कुल 40 प्रजातियां हैं।इनमें बेहद कम समय में लगने वाली प्रजातियां भी हैं। सकते हैं। इस दिशा में कई देशों में

संपदा प्रौद्योगिकी संस्थान इस पर शोध कार्य कर रहा है। इससे कई उत्पाद तैयार किए जा रहे हैं। हिमाचल में अब तक बास के 50 हजार पौधे वितरित कर चुके हैं । इससे किसान अच्छी कमाई कर सकते हैं । -डा. संजय कुमार, निदेशक आइएवबीटी सीएसआइआर), पालमपुर। प्रदेश से संबंधित खहरें www.Jagran.com पर पढ़



Dainik Jagran





Good News! Indian scientists discovered dengue medicine



17th September, 2021

Lucknow: Experts researching medicine for dengue treatment have achieved great success. Experts from The Central Drug Research Institute (CSIR-CDRI) in Lucknow have conducted two drug searches. In the first phase, the trial on rats has been found to be successful. Soon it will be tested on human beings also.



The same dengue crisis begins to looming every year by September. Initially, the fever seems normal, but due to lack of proper treatment and delay, it becomes fatal. Experts from the Central Institute of Drug and Research, CSIR-CDRI, Lucknow have conducted two drug searches for dengue treatment, which has been successfully tested on mice. However, the drug has so far been used for the treatment of thrombosis. The test has just been conducted on mice, soon after conducting a trial on human beings, the drug will be available to humans. Professor Tapas Kundu, a Director, of the same CDRI, said that these medicines will also be

fully effective on dengue patients. After the human trial, the drug will be patented and launched soon. Tell me, there is a large number of people dying of dengue in India. The reason is that there are many accurate medicines for the treatment of dengue. Treatment has been done only on the basis of its symptoms. This discovery of experts is considered to be very big and important for patients in the country as well as around the world.

Published in:

News Track Live





Union Steel Minister calls for Creation of an Ecosystem for Coal Gasification and Development of Indigenous Technology

CSIR-CIMFR

16th September, 2021

The Union Steel Minister, Ram Chandra Prasad Singh chaired a meeting here today with the stakeholders from the steel industry, consultancy providers and CSIR- Central Institute of Mining and Fuel Research (CIMFR) along with officials of Steel Ministry to deliberate on the prospects of using coal gasification in steel production through the Direct Reduced Iron (DRI)



route. The Steel Minister emphasised the need for development of indigenous coal gasification technology which is suited for the indigenously produced coal. Shri Singh urged the stakeholders to come together in development of the technology which can be gainfully utilised by the steel industry and help in reducing the dependence of imported coal and promote "Atmanirbhar Bharat".Discussions were held on the present scenario and the way forward for promoting coal gasification in the steel sector.

Various Coal Gasification Technologies commercially available, their pros & cons, and their

suitability for Indian high-ash noncoking coal were discussed. Development of Indigenous Technology for coal gasification alongwith technologies for recovery of the by-products for applications in the various sectors such as chemicals, fuels, fertilisers etc. were also discussed. Cost analysis of coal gas vis-à-vis the natural gas and issues & constraints for adoption of Coal Gasification based DRI plants in the country were also deliberated. Government interventions required to address the issues & constraints and the way forward for adoption of Coal Gasification based DRI plants in the country was also discussed. The Steel Minister directed that to facilitate creation of an ecosystem for coal gasification and development of





indigenous technology a Committee with members of the concerned Ministries viz. Ministry of Power, Ministry of Coal, Ministry of Mines, Ministry of Petroleum & Natural Gas along with the stakeholders from the steel industry, consultancy providers, research laboratories CSIR-CIMFR, technology providers etc. be constituted.





CSIR-NGRI



16th September, 2021

सीएसआईआर में हिन्दी दिवस एवं हिन्दी पखवाड़ा आयोजित

हैदराबाद, 15 सितंबर-(मिलाप ब्यूरो) सीएसआईआर-राष्ट्रीय भूभौतिकीय अनुसंधान संस्थान में हिन्दी दिवस एवं हिन्दी पखवाड़े वेर समापन समारोह का आयोजन ऑनलाइन माध्यम से किया गया। आज यहाँ जारी प्रेस विज्ञप्ति के अनुसार, अवसर पर आयोजित कार्यक्रम की अध्यक्षता संस्थान के निदेशक डॉ. वी.एम. तिवारी ने की। कार्यक्रम में मुख्य अतिथि के रूप में सरकारी प्रकृति चिकित्सालय, हैदराबाद की अधीक्षक डॉ. एस. भवानी ने भाग लिया। डॉ. एस. भवानी ने अपने संबोधन में सरल एवं सुबोध हिन्दी में हिन्दी और भारतीय संस्कृति को प्रकृति चिकित्सा के साथ कैसे जोड़ सकते पर्वतमों के बारे में जिपनन पता के



किया। अवसर पर संस्थान के देवेन्द्र कुमार (वरिष्ठ प्रधान प्रशासन नियंत्रक डी.वी.एस. शास्री वैज्ञानिक) ने कहा कि विविधता में ने कर्मचारियों से राजभाषा विभाग, एकता भारत की अनूठी विशेषता है। भारत सरकार द्वारा जारी राजभाषा प्रतिज्ञा कराई। अध्यक्षीय भाषण में संस्थान के निदेशक डॉ. वी.एम. तिवारी ने सभी वाले इस देश में सभी को जोड़ेने के को हिन्दी दिवस की हार्दिक लिए हिन्दी एक महत्वपूर्ण कड़ी का शुभकामनाएँ दीं। उन्होंने समारोह की कार्य करती है। उन्होंने इस अवसर मुख्य अतिथि डॉ. भवानी और पर आयोजन समिति की ओर से

भांति-भांति के लोग, उनके रंग-बिरंगे पहनावे, अलग-अलग तरह के खान-पान और भिन्न-भिन्न बोली व भाषाओं



| प्रकाश डाला। उन्होंने कहा कि प्रकृति | 그는 것은 것을 다 같은 것을 하는 것을 것을 하는 것을 알았는 것을 것 같아. 이렇게 가지 않는 것은 것을 가지 않는 것을 가지 않는 것을 같아. 나는 것을 같아. 나는 것을 하는 것을 수 있다. 이렇게 하는 것을 하는 것을 하는 것을 하는 것을 하는 것을 수 있다. 이렇게 하는 것을 수 있다. 이렇게 하는 것을 하는 것을 수 있다. 이렇게 아니라. 이렇게 하는 것을 수 있다. 이렇게 아니라. 이렇게 하는 것을 수 있다. 이렇게 아니라. | | | ज्ञापन के साथ कार्यक्रम संपन्न हुआ। |
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| चिकित्सा पाठ्यक्रम में पहला विषय संस्कृत है, क्योंकि संस्कृत से ही सभी | | वित्त एवं लेखा अधिकारी डॉ. संजय | भाषाओं की माँ संस्कृत है। हिन्दी दिवस तथा पखवाडा | कार्यक्रम का समन्वयन एवं संचालन संस्थान के वरिष्ठ हिन्दी अधिकारी |
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Hindi Mila, Shub Labh, Swantantra Vartha



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