CSIR IN MEDIA

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

The Minister addresses an “International Conference on Emerging Trends in Biosciences and Chemical Technology- 2022” in Jammu

CSIR-IIIM, IITR

03rd December, 2022

Biotech Startups have grown 100 times in the last 8 years from 52 odd startups in 2014 to 5300 plus in 2022 14 international participants like USA, Greece, South Korea, Scotland, Singapore, Thailand, Argentina, Brazil, Mexico, Malaysia and Vietnam taking part in conference Investment in Bio-economy increased from Rs 10 Crore in 2014 to Rs 4200 crore in 2022, growth of 400 times creating over 25,000 high skilled jobs: DrJitendra Singh The Minister informs that Biotech industry crossed one-billion-dollar R&D spend and it almost trebled within a year from 320 million dollars in 2020 to 1.02 billion dollars in 2021

Union Minister of State (Independent Charge) Science & Technology; Minister of State (Independent Charge) Earth Sciences; MoS PMO, Personnel, Public Grievances, Pensions, Atomic Energy and Space, DrJitendra Singh said, India's bio-economy has grown 8 times in the last 8 yearsunder Prime Minister Modi from $10 billion in 2014 to over $80 billion in 2022.

Addressing an “International Conference on Emerging Trends in Biosciences and Chemical Technology- 2022” in Jammu, DrJitendra Singh said, Biotech Startups have grown 100 times

in the last 8 years from 52 odd startups in 2014 to 5300 plus in 2022. He said, 3 Biotech Startups were incorporated every day in 2021 and a total of 1,128 biotech startups were set up in 2021 alone, signaling the rapid growth of the sector in India.

The conference is being organized by Shri Mata Vaishno Devi University, School of Biotechnology, Jammu in collaboration with CSIR-IIIM Jammu and The Biotech Research Society of India, from 3rd - 5th December 2022.

There are 14 international participants like USA, Greece, South Korea, Scotland, Singapore, Thailand, Argentina, Brazil, Mexico, Malaysia and Vietnam and 24 National keynote and invited speakers and around 300 participants from almost every state of India who are presenting their work in the form of Oral and Poster Presentations.

Dr Jitendra Singh pointed out that from a paltry investment of Rs 10 Crore in Bio-economy in 2014, the fund growth saw 400 times hike to Rs 4200 crore in 2022, creating over 25,000 high skilled jobs. He said, number of Bio tech incubators have increased from 6 in 2014 to 75 now, while Biotech products have increased from 10 products to more than 700 today. Dwelling on the growth of India Bioeconomy, DrJitendra Singh pointed out that India administered nearly 4 million doses of COVID-19 vaccines per day and a total of 1.45 billion doses in 2021. Similarly, we conducted 1.3 million COVID-19 tests each day in 2021 and overall 507 million tests in 2021.

Dr Jitendra Singh also pointed out that Biotech industry crossed one-billion-dollar R&D spend, thanks to Covid economy and it almost trebled within a year from 320 million dollars in 2020 to 1,02 billion dollars in 2021. The Minister said, India will soon enter the league of top-5 countries in Biotech's global ecosystem.

Dr Jitendra Singh quoted Prime Minister Narendra Modi to point out the five big reasons why India is being considered a land of opportunities in the field of biotech. First- diverse population and diverse climatic zones, Second- India's talented human capital pool, Third- increasing efforts for ease of doing business in India. Fourth- The demand for Bio-Products is

increasing continuously in India and fifth- India's Biotech Sector and its track record of success. Referring to the growing reputation and profile of Indian professionals on the global stage, DrJitendra Singh said, there is growing trust in the skill and innovation of Indian IT professionals in the World and in this Bio-economy decade, the same will be true for the Bio Professionals of India.

Scientific sessions of the conference have been divided under different themes on Health Sciences, Enzymology and Molecular biology, Synthetic Biology, Material Science and Nanomaterial, Natural Products and Green Chemistry, Environmental Sustainability and Development and Plant & Animal Science.

Noted participants from organizing bodies include Prof. R K Sinha, Vice Chancellor, SMVDU, Director, CSIR-IIIM Jammu, Prof. Ashok Pandey, Distinguished Scientist Centre for Innovation & Translational Research, CSIR-Indian Institute of Toxicology Research Lucknow, Shri Nagendra Singh Jamwal, JKAS, Registrar SMVDU, Dr. InduBhushan, Asst. Prof., School of Biotechnology, SMVDU and Convener of the Conference, Dr. Ratna Chandra, Head, School of Biotechnology, SMVDU and Organizing secretary of the Conference.

Published in:

Pib

Mouse deer pheromones helped CCMB scientists in species recovery programme

CSIR-CCMB

05th December, 2022

Mouse deer, or Indian chevrotain, plays a major role in the forest ecosystem as a seed disperser, and serves as an important prey for many carnivores. Though it is commonly found in most forested areas, it has been listed as endangered in the Wildlife Protection Act due to frequent hunting for their bushmeat. Scientists at the Laboratory for the Conservation of Endangered Species (LaCONES) at CSIR-Centre for Cellular and Molecular Biology (CCMB) has successfully initiated a conservation breeding and species recovery programme of mouse deer in 2010 in collaboration with the Nehru Zoological park here and support from Central Zoo Authority.

Scientists involved in studying the reproductive behaviour of the mouse deer in captivity realised that it is the 'sex pheromones' (androstenone and androstanol) in the species that play a role in their reproduction by bringing opposite sexes together for mating in the wild as they are solitary creatures.

"Our findings have already helped in breeding of mouse deer at Nehru Zoological park. It will also help other Indian zoos and elsewhere," said LaCONES scientist G. Umapathy, whose group studied the reproductive behaviour of mouse deer in captivity, in an official release.

The programme started with six deer — two males and four females — and aimed to increase their numbers in captivity and reintroduce them into the wild. The scientist and his team discovered the occurrence of novel post-partum 'estrus' (phase where the animal is ready to mate) when the female mouse deer mates within four to six hours of delivery. It is said to be

the shortest post-partum estrus observed so far among large mammals. While analysing the hormone profiles, it was found that the 16-androstenes sex pheromones in mouse deer were significantly elevated in the female mouse deer during delivery, post-partum estrus and mating. These pheromones have also previously reported to have played a major role in the reproduction of pigs, said Mr.Umapathy.

Scientists examined molecular characteristics of these pheromones, their synthesis pathway and functions in mouse deer reproduction. These findings were recently published in the journal, Cells (https://doi.org/10.3390/cells11233837 https://www.mdpi.com/2073-4409/11/23/3837).

Authors of the paper included Vinod Kumar, Manu Shivakumara, Caroline Karunakaran, Anupama Sekhar, Mamta Sajwan-Khatri, Sandeep Mushkam, Wasimuddin and Senthilkumaran Balasubramanian.

Published in:
The Hindu

Stress on use of technological innovations to reduce health problems

CSIR-CIMFR, CMERI 05th December, 2022

Director CSIR-CIMFR Prof. Arvind Kumar Mishra has emphasised on use of technological innovations to reduce Occupational Health Problems in mining operations.

Delivering lecture at Institution of Engineers (India) Durgapur on occasion of 32nd National Convention of Mining Engineers held at at IE(I) Durgapur Local Centre he said, "stressed upon using the technological innovations to reduce noise, dust, fumes and vibrations due to mining operation. He explained about the instruments and assessment methodology available with CSIR-CIMFR to identify the reasons for the hazards and the areas of future RandD for developing products and technology to reduce the mining induced hazards.

Prof Mishra was also awrded as eminant engineering personality. Dr Vivek Kumar Himanshu and Dr Arka Jyoti Das , Senior Scientists of CSIR-CIMFR, Dhanbad were felicitated with IEI Young Engineers award for their contributions in mining field.

Dr Santosh Kumar Ray, Senior Principal Scientist chaired a panel discussion on the theme of this convention. He briefed the audience about the role of CSIR-CIMFR in combating mine fire and reduction of dust in mining operation.

Dr. Siddharth Singh of Media Department of CIMFR informed that Dr Niraj Kumar Mohalik and other scientists and Project fellows also attended this convention.

Participants from BCCL, ECL, CMERI Durgapur, NIT Durgapur, IIEST Shibpur, SAIL and other organisations have also attended this convention.

Published in:

Daily Pioneer

Centre asks states not to procure imported air quality monitors, indigenous systems to be deployed

CSIR-NPL

01st December, 2022

NEW DELHI: Seeking to deploy cost-effective indigenous systems to monitor air quality, the Central Pollution Control Board (CPCB) has asked states/Union territories (UTs) not to go ahead with procurement of new imported continuous ambient air quality monitoring stations (CAAQMS), using central government funds, for 131 non-attainment cities under the National Clean Air Programme (NCAP).

Non-attainment cities are those which do not conform to the national ambient air quality standards (NAAQS). It includes big metros like Delhi, Mumbai, Chennai, Kolkata, Bengaluru, Kanpur, Pune, Nagpur, Chandigarh and almost all state capitals and other million-plus population cities. These cities will, meanwhile, continue to monitor air quality with the help of their existing monitoring stations to measure key pollutants including hazardous particulate matters (PM).

"A conscious decision has been taken to save hundreds of crores of rupees at a time when our own indigenous monitoring system, developed by CSIR-National Physical Laboratory (NPL), is getting ready for deployment in the next few months. The money, saved due to the move, can be used for taking different other air pollution abatement measures in the cities," said an official while referring to the decision on cancelling procurement of imported systems.

Though such a ban on procurement is unusual, especially when work orders are issued, states would be free to go ahead with new imported systems with their own funds. The CPCB last week wrote to all states, asking them to cancel work orders for procurement of imported

CAAQMS using the central fund earmarked for the purpose under the NCAP and 15th Finance Commission.

Many cities have issued tenders for 8-10 CAAQMS each under the central funds. Each imported CAAQMS roughly costs around Rs 1.5 crore. Most of the currently functional systems had been imported from the United States and European countries in the past.

Asking state pollution control boards (SPCB) and urban local bodies (ULB) of 131 cities not to issue fresh work order for procurement, the CPCB on November 22 wrote, "If a work order is issued for procurement of CAAQMS but funds not released then it is to be cancelled." It even instructed SPSB/ULB to refer the matter to the environment ministry or the CPCB with "documentary evidence" for taking a view if the funds for procurement have already been transferred.

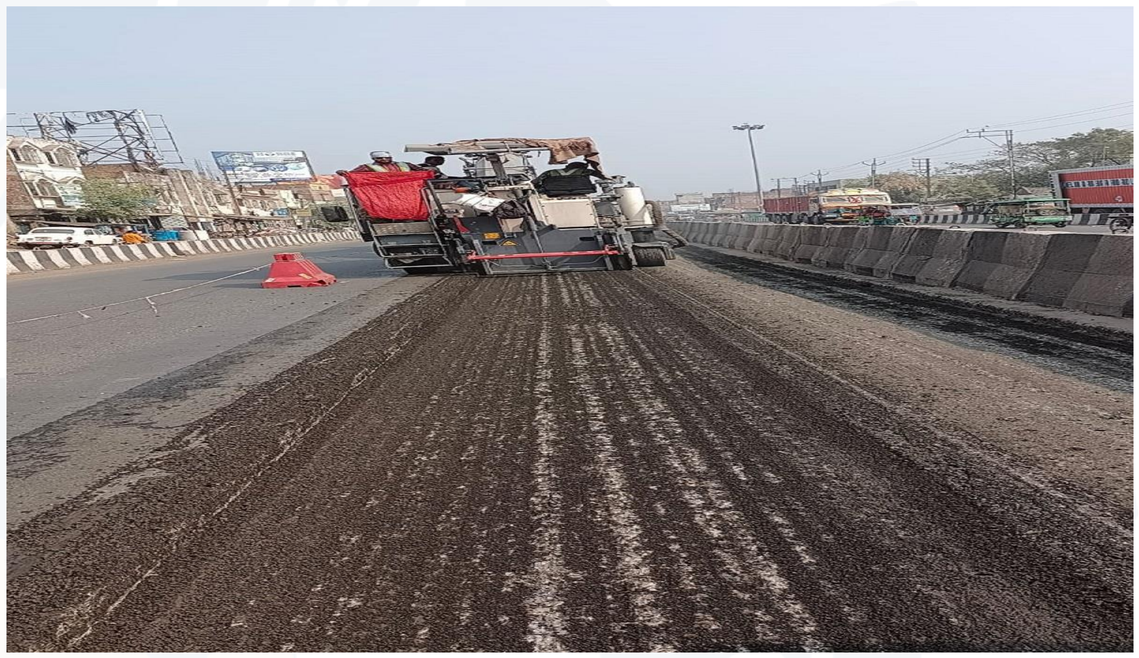
At present, 1,243 monitoring stations covering 465 cities/towns in 28 states and seven UTs have been functional. Besides, 24 monitoring stations in rural areas of Punjab and two monitoring stations in Daman & Diu and Dadra & Nagar Haveli have also been set up on an experimental basis.

Published in:
Times Of India

पुरानी सड़कों की रिसाइकिल हुई आसान और किफायती, सीआरआरआई ने ईजाद की नई तकनीक

CSIR-CRRI

29th November, 2022



अब पुरानी सड़कों की रिसाइकिलिंग आसान और किफायती होगी. सेंट्रल रोड रिसर्च इंस्टीट्यूट (सीआरआरआई) ने रेजुपेव तकनीक इजाद की है. इस तकनीक से पुरानी सड़कों की मरम्मत के लिए सड़क के ऊपर 5 से 10 सेमी. तारकोल की लेयर डाल दी जाती है, जिससे सड़क ऊंची हो जाती है. इस प्रक्रिया में देश में प्रतिवर्ष गिट्टी काफी मात्रा में गिट्टियां और तालकोल की आवश्यकता होती है. दोनों प्राकृतिक संसाधनों के जरूरत से अधिक इस्तेमाल से पर्यावरण पर दुष्प्रभाव पड़ता है.

सीएसआईआर और सीआरआरआई और वर्मा इंस्डस्ट्रीज द्वारा रिजुपेव तकनीक से तारकोल की लेयर को उखाड़कर 60 फीसदी तक मैटेरियल को दोबारा से इस्तेमाल किया जा सकेगा. इसके अलावा लागत भी कम आएगी. सीआरआरआई ने नई तकनीक का इस्तेमाल कर पश्चिम बंगाल में नेशनल हाईवे के एक किमी. रोड तैयार की गयी है. यह देश का पहला हाईवे है, जहां पर नई तकनीक का इस्तेमाल किया गया है. इस सड़क से रोजाना 5000 से 6000 व्यावसायिक वाहन गुजरते हैं. इस सड़क के निर्माण में देश की प्रतिष्ठिति रोड निर्माण कंपनियां क्यूब हाईवेज, मार्कोलाइन, वीआर टेक्नीक, सारस इंफ्रास्ट्रक्चर शामिल रही हैं.

इस तकनीक को विकसित करने वाले सीआरआरआई के प्रमुख वैज्ञानिक डा. सतीश पांडेय बताते हैं कि देश में अभी तक 30 फीसदी तारकोल मैटेरियल को दोबारा से इस्तेमाल किया

जाता था, लेकिन रिजुपेव तकनीक से 60 फीसदी तक मैटेरियल दोबारा से इस्तेमाल किया जा सकता है.

वे बताते हैं कि इस तकनीक के इस्तेमाल से बनी रोड की लागत सामान्य के मुकाबले 40 फीसदी कम आएगी. इस तरह रुपये की बचत होगी. इसके साथ ही थिकनेस अधिक होने से मजबूत भी अधिक होगी. इस तकनीक के अन्य फायदे भी हैं. पूरी तरह से इको फ्रेंडली यह तकनीक पूरी से इको फ्रेंडली है. तकनीक बॉयो आयल पर आधारित है.

प्राकृतिक संसाधन संरक्षित करने में मददगार

तकनीक प्राकृतिक संसाधन को संरक्षित करने में मददगार होगी. मौजूदा समय तारकोल को आयात किया जाता है, लेकिन इस तकनीक से तारकोल का इस्तेमाल कम किया जा सकता है. सड़क निर्माण में पत्थरों को तोड़कर गिट्टियां बनाई जाती हैं, लेकिन तकनीक की मदद से दोबारा मैटेरियल इस्तेमाल कर प्राकृतिक संसाधनों को बचाया जा सकता है.

पूरी तरह से भारतीय तकनीक

यह तकनीक सीएसआईआर- सीआरआरआई और वर्मा इंडस्ट्रीज ने विकसित की है जो पूरी तरह से भारतीय है. यह स्वदेशी तकनीक आयात की जाने वाली तकनीक के मुकाबले सस्ती भी है.

Published in:
Hindi.News18

Ladakh to initiate geo, drone mapping of wonder berry

CSIR-IHBT, CFTRI

03rd December, 2022

Having become a wonder cash crop of the cold desert region of Ladakh, the UT Administration has decided to initiate geo and drone mapping for the widespread area under Seabuckthorn. Seabuckthorn, also identified as Leh Berry, grows in the wild across Ladakh and the adjoining tribal Lahaul-Spiti and Kinnaur in Himachal Pradesh. It has helped generate economic benefits for residents of these areas.

Commissioner and Secretary, Industries and Commerce, Ladakh, Saugat Biswas chaired a meeting of the apex committee for the development and promotion of Seabuckthorn in UT Ladakh.

The concerned officials from the departments of horticulture, forest and Industries apprised about the status of various Seabuckthorn initiatives; bankable Seabuckthorn projects; geo-mapping and drone mapping for the area under Seabuckthorn; quality control labs; timeline for a model orchard of Seabuckthorn plantation to be developed at Chuchot, tissue culture, quality control lab; royalty collection; gully cutting, location identification, among others.

Biswas urged the concerned officials to ensure that the machinery and different tests that can be performed must benefit the growers and entrepreneurs. He exhorted that sustained capacity building is of utmost importance and instructed to arrange more collaborations with national-level institutions such as NIFTEM, CSIR-IHBT and CFTRI Mysore for skill development.

It was informed in the meeting that 26 progressive farmers engaged in the food processing industry were sent to NIFTEM, Kundli in August for a 6-day training programme on horticulture processing and various food processing technologies. Further, 20 entrepreneurs were sent to IHBT Palampur, Himachal Pradesh, in August for a training programme on food processing and value addition of ODOP products.

Biswas suggested that at least two more cooperatives should be formed by the department of cooperatives. He asked the PMFME team to aid in overall formalizing and financial support. For the model orchard, the officials were directed to prepare a suitable action plan.
Among others, officers of Defence Institute of High-Altitude Research (DIHAR) that is working on cold arid agro-animal technologies, also attended the meeting.

Administrative Secretary, Tourism and Culture, Kacho Mehboob Ali Khan said that the tourism department, Ladakh, is planning to participate in various tourism marts in India and abroad during the ensuing winter season to promote tourism in the UT.

He stated that participation in these marts will not only increase tourism footfall in Ladakh but will also provide a platform for all stakeholders in the tourism and hospitality sector to interact and transact business opportunities with national and international tourism related stakeholders. He urged the stakeholders to come up with unique promotional videos, pamphlets and other materials required for projecting Ladakh as an exotic tourist destination.

He said Ladakh can take this opportunity to showcase its hidden destinations, highlight Astro tourism, religious and heritage tourism, border tourism, adventure tourism, cultural tourism, geo-tourism etc. and project Ladakh as an eco-friendly and sustainable tourist destination.

He impressed upon the officials and stakeholders to explore alternate trekking routes for boosting tourism in the remote locations of Ladakh.

Published in:
The Statesman

CSIR-CIMAP, NEERI, NBRI, CMERI

03rd December, 2022

Stevia farming will make Farmers in Vidharbha Millionaire

स्टेवियाची शेती विदर्भातील शेतकऱ्यांना करील लक्षाधीश

'ॲग्रो व्हिजन'प्रदर्शनातील 'नीरी'च्या दालनात माहिती

◆ नागपूर, २ डिसेंबर

पैराग्वेतील गोड जडी-बुटी स्टेवियाची विदर्भात लागवड शक्य असून, वर्षाला हेक्टरी तीन ते साडेतीन टन उत्पादन शक्य आहे. या मालाला १०० ते १२० रुपये किलोचा भाव मिळून वर्षाकाठी २ ते २.७ लाख रुपये उत्पन्न सहज मिळू शकते. ही माहिती नुकत्याच झालेल्या 'ॲग्रोव्हिजन' प्रदर्शनात वैज्ञानिक आणि औद्योगिक संशोधन परिषद तसेच राष्ट्रीय पर्यावरण अभियांत्रिकी संशोधन संस्थेतर्फे (नीरी) उभारण्यात आलेल्या दालनात देण्यात आली.

या दालनाचे उद्घाटन संचालक डॉ. अतुल वैद्य यांच्या हस्ते झाले. ॲग्रो प्रॉडक्ट व फॉर्मिंग इक्विपमेंट्स विकसित करण्यासाठी विविध उपक्रम हाती घेण्यात आले आहेत. सीएसआयआर संस्थांनी शेतकऱ्यांच्या फायद्यासाठी उत्पादित त्यांची उत्पादने या दालनात दाखवली आणि कमीत कमी भांडवलात उत्पादकता वाढविण्याबाबत शेतकऱ्यांना मार्गदर्शन करण्यात आले.

अधिक लाभ प्राप्त करण्यासाठी विदर्भातील शेतकऱ्यांसाठी 'सीएसआयआर-सीमेप'द्वारे विकसित लेमनग्रास व पालमारोसाच्या विविध जातींना लागवडीसाठी प्रोत्साहन देण्यात आले. 'सीएसआयआर-सीमेप' लखनऊद्वारे

विदर्भात ६०० एकर क्षेत्रात आधीच लेमनग्रास आणि पामरोसा या जातींची लागवड केली आहे. 'सीएसआयआर-सीमेप'द्वारा त्वतेची देखभाल, केसांची देखभाल, डासांना पळवि णारे न्युट्रास्पुटिकल्स, जंतुनाशकांसह विविध हर्बल उत्पादनांचे प्रदर्शनही करण्यात आले.

शेतकऱ्यांचे उत्पन्न वाढवण्यासाठी 'सीएसआयआर-सीमेप'ने जैव खते, हर्बल उत्पादने आणि पांढरी माशी प्रतिरोधक ट्रान्सजेनिक कापूस प्रदर्शित केला. पिकांची गुणवत्ता सुधारण्यासाठी पॉलीहाऊस आणि बायोइनोक्युलेट मध्ये जरबेरा लागवडीचे ज्ञान शेतकऱ्यांना देण्यात आले.

'सीएसआयआर, सीएमईआरआय, दुर्गापूर यांनी आधुनिक शेतीसाठी आपल्या नावीन्यपूर्ण कल्पना प्रदर्शित केल्या, ज्यात सौर- आधारित स्वयंचलित सिंचन आणि कापूस विणणाऱ्या उपकरणांचा समावेश आहे. भारनियमनावर उपाय म्हणून शेतकऱ्यांना सौरऊर्जेवर चालणाऱ्या सिंचनाचे प्रात्यक्षिक दाखविण्यात आले. ◀*(तभा वृत्तसेवा)*

दालनात प्रदर्शित उत्पादनांची माहिती जाणून घेताना डॉ. अतुल वैद्य

Published in:
Tarun Bharat

IIIM celebrates Foundation day

CSIR-IIIM

02nd December, 2022

CSIR-Indian Institute of Integrative Medicine, Jammu, a constituent of Council of Scientific and Industrial Research (CSIR), under Union Ministry of Science and Technology, Govt of India, celebrated its 82nd Foundation Day here today. In this connection, an impressive programme was held, which was largely attended by eminent scientists, faculty members of research & educational institutions, entrepreneurs, invited dignitaries and members of CSIR-IIIM.

Prof S P Gautam, (former-Chairman, Central Pollution Control Board, New Delhi, India) was chief guest on the occasion. Dr D Srinivasa Reddy, Director, IIIM Jammu introduced him to the audience and described him as a versatile personality, an administrator and academician par excellence.

On this occasion, the chief guest distributed prizes for different activities like Best Research Paper Award, Science Quiz and winners of various tournaments/activities like Badminton and cricket organised as part of foundation day celebrations.

In the research area of Plant Sciences and Agrotechnology, Umar Gani & Sajad Ahmed got first prize, Maridul Kundan won second and Pooja Goyal stood 3rd. In Fermentation and Microbial Biotechnology, Ravi Singh Manhas got first prize while as Abid Bashir Sofi & Vidushi Abrol were second and third winner respectively. In the area of Pharmacology, Abhishek Gour, Adil Qadir Bhat got first award and Chittaranjan Behera, Diksha Manhas received 2nd while Shipra Bhat Nazir Ahmad Lone Divya Gupta were recipient of 3rd.

In Natural Products & Medicinal Chemistry, Ankita Sharma and Davinder Singh got first prize, Salman Jameel, Sadaqat Farooq and Neha Sharma got second whileas Mohit Sharma, Chetan Kumar and Razia Banoo received 3rd prize.

In Synthetic Organic Chemistry & Total Synthesis, Feroze Hussain & Monika Bhardwaj got first prize, Muneer Ul Shafi Bhat received second and Radhika Anand & Riyaz Ahmed were third prize winner.

In Synthetic Med & Total Synthesis, First prize was bagged by Debojyoti Bag, Alpa Sharma got second and Shivangani Mahajan received the third in this category
The winners of Science Quiz were Omesh Manhas (First), Perveen Kumaar (2nd) and Poonam Choudhary (3rd).

In Badminton Women single category, Tanuksha was winner and Mamta Gocher was runner up. In Badminton, men single category, Sarthak Sahdev and Ripul Tandon were winner while in Badminton men double category, Sarthak Sahdev & Bikram Singh were winner and Anil Katare & Parul Kashyap were runner up. In cricket tournament, Colony XI was the winner and RMBD&IST XI was runner up.

Dr Deepika Singh conducted the proceedings while Er Abdul Rahim, Chief Scientist & RMBD&IST Division presented vote of thanks.

Published in:
Daily Excelsior

CCMB to study monitor lizards

CSIR-CCMB

02nd December, 2022

The modern-day monitor lizards are descendants of the ancient lizards that once roamed the Earth millions of years ago. While the species has survived millions of years by constantly evolving, in the recent past, their numbers are surely dwindling. To help in their conservation and also to understand the genetic make-up of these ancient species, geneticists from Hyderabad-based Centre for Cellular and Molecular Biology (CCMB) have launched a unique study.

Led by CCMB senior principal scientist, Ajay Gaur, the team of genetic researchers have launched efforts to generate complete mitochondrial sequence of the Indian monitor lizard. In fact, the preliminary data by the group has indicated "clear distinction between different species in India on the basis of partial sequence of four mitochondrial genes".

All the species of monitor lizards existing in the country are Schedule I species under India's Wildlife Protection Act 1972, which means they are endangered species and rigorous efforts are needed to protect them. The Schedule 1 also grants the species protection from poaching, killing, trading and individuals caught violating the provisions in the Schedule are liable to face harshest of penalties.

However, the common Indian monitor lizard, popularly known as the Bengal monitor (Varanus bengalensis), is the most targeted species in the illegal animal trade. They are frequently taken captive for meat and body parts that are often sold because of superstitious beliefs.

One of the biggest threats to monitor lizards is hunting for their skin, which are used to make drums. The genitals of monitor lizard are identified with Hatha Jodi plant, which many believe has medicinal properties and also is an aphrodisiac. The flesh and eggs of the monitor lizard are also a delicacy in some parts of the country.

So far, comprehensive scientific data-based information on the ecology and genetics of Indian monitor lizards are not available. In fact, to take-up conservation efforts of this ancient species, there is a need to conduct thorough phylogenetic studies.

“With increasing threat of illegal poaching, loss of habitat, climate change and highly unresolved phylogenetic relationship within related species, there is a need to generate more genetic information to unfold the unique biology of Indian monitor lizards,” CCMB researchers in a report on Monitor Lizard, said.

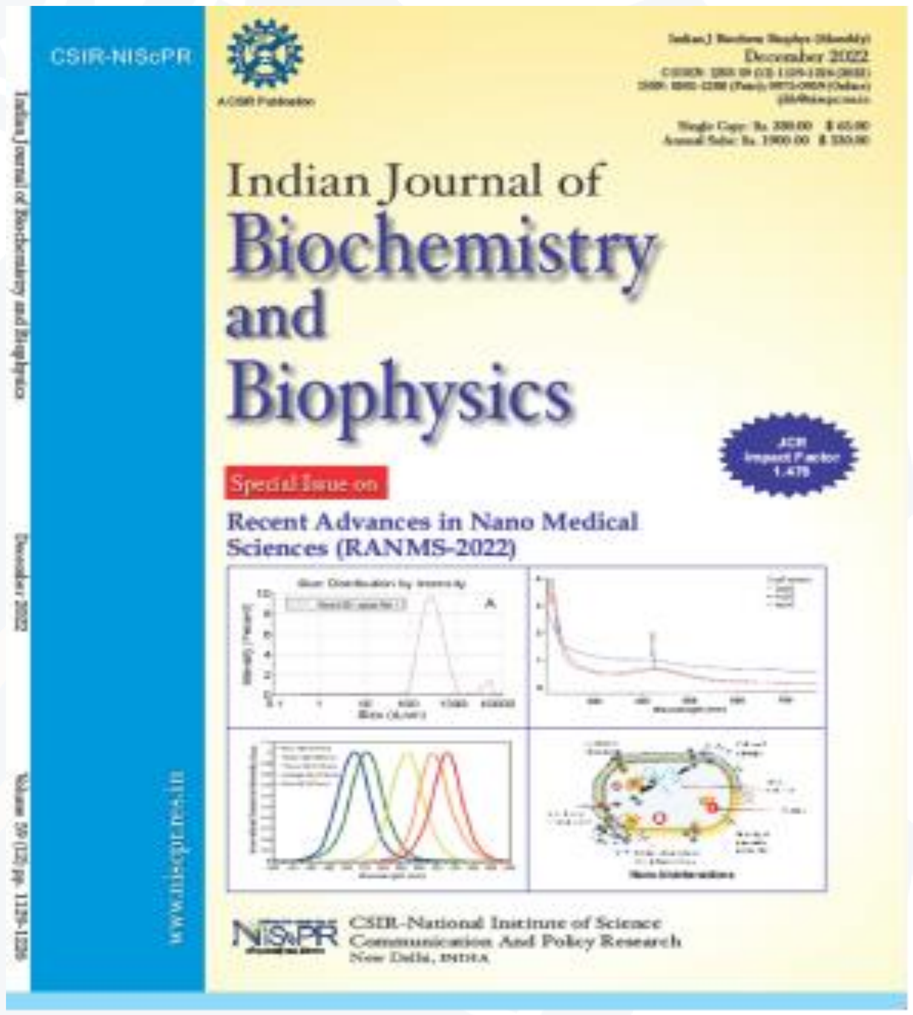
Published in:
Telangana Today

Indian Journal of Biochemistry and Biophysics (IJBB), CSIR-National Institute of Science Communication and Policy Research (NIScPR), New Delhi, is a special issue on the theme, "Recent Advances in Nano Medical Sciences (RANMS-2022)"

CSIR-NIScPR

01st December, 2022

The December 2022 issue of the Indian Journal of Biochemistry and Biophysics (IJBB), CSIR-National Institute of Science Communication and Policy Research (NIScPR), New Delhi, is a special issue on the theme, "Recent Advances in Nano Medical Sciences (RANMS-2022)". This special issue is being published in association with the Institute of Nano Medical Sciences (INMS), and Institution of Eminence (IoE), University of Delhi, and Kirori Mal College under the aegis of DBT Star College. CSIR-NIScPR, a leading publicly funded Science Communication and Policy Research institute in India, publishes 16 journals in various STI disciplines, and all of them are indexed by reputed national/international agencies like Science Citation Index (Web of Science), Scopus, NAAS and UGC CARE.



The IJBB, a monthly premier peer-reviewed research journal in the subject area of Biochemistry, Biophysics and Biotechnology, with the JIF score of 1.472, ranks first amongst all the CSIR-NIScPR journals across the disciplines. With the able guidance and active support of the recently re-constituted editorial board with reputed national/international experts, the journal has been receiving considerable attention from researchers and academicians in the area of biochemistry, biophysics and biotechnology across the globe. Such special issues not only serve the journal in outreach and extend its network but also boost its impact among the various stakeholders.

This special issue, as the productive outcome of the Centenary Year Conference RANMS-

2022 organized by INMS and IoE during 22-23 June 2022, comprises 97 pages of quality content with 7 review articles and 3 original research papers broadly covering the advancements in the Nano Medical Sciences. The review articles briefly cover the applications and challenges of nanoparticles in vaccine and immunology; Nanotechnology in forensic science, remediation by nanoparticles in environment pollution, engineered nanoparticles and nanotechnological interventions; immunomodulatory potential of nanomaterials, Synthesis of quantum dots; etc. The original research articles discuss about the Antimicrobial activity of iron nanoparticles; biofabrication and optimization of silver nanoparticles; and Applications and challenges of zinc oxide as nanomaterials.

This special issue could be brought out successfully only with the consistent encouragement of Prof. Ranjana Aggarwal, Director, CSIR-NIScPR, New Delhi, Dr Stephen Dimitrov, Chief Editor, IJBB, Dr DN Rao, Executive Editor, IJBB, and senior colleagues Shri RS Jayasomu & Dr. G Mahesh, Head, Research Journals and the progressive initiative taken by Dr. NK Prasanna, Senior Scientist and Scientific Editor, IJBB, Contributions from authors, reviewers, and the technical support extended by the print production team of CSIR-NIScPR in publishing this special issue is acknowledged.

Published in:

Pib

CSIR-IIP

01st December, 2022

किसानों के साथ भारतीय पेट्रोलियम संस्थान के वैज्ञानिक।

काली सरसों से बनेगा बायो डीजल व बायोजेट ईंधन

■ सहारा न्यूज ब्यूरो

देहरादून।

- भारतीय पेट्रोलियम संस्थान के वैज्ञानिकों ने काली सरसों की फसल तैयार की
- काली सरसों की फसल से किसानों की होगी अतिरिक्त आय, मिलेगा रोजगार

विकास के साथ ऊर्जा की मांग में भी बढ़ोतरी हो रही है। परम्परागत ऊर्जा स्त्रोतों के दहन से होने वाले प्रदूषण को ध्यान मे रखते हुए आज ऊर्जा के अतिरिक्त स्त्रोतों जैसे की जैव ऊर्जा के उत्पादन को प्राथमिकता प्रदान की जा रही है। जैव-ईंधन, तेल आयात पर देश की निर्भरता और प्रदूषण को कम करने मे सहायक है। इसके साथ ही यह किसानों को अतिरिक्त आय प्रदान करने और ग्रामीण क्षेत्रों में स्थानीय स्तर पर रोजगार के अवसर उपलब्ध कराने में कारगर है।

सीएसआईआर भारतीय पेट्रोलियम संस्थान के वैज्ञानिकों ने पंजाब कृषि विश्वविद्यालय के सहयोग से ब्रेसिका केरीनाटा (काली सरसों) की फसल तैयार की है, जिससे बायोडीजल बनाया जा सकता है। हाल ही में एसएस जीआईएमटी काशीपुर के प्रांगण में लगभग तीन एकड़ में इस फसल को लगाया जा चुका है। पिछले सप्ताह 21 से 24 नवंबर के दौरान राष्ट्रीय वनस्पति अनुसनान संस्थान, लखनऊ के बंथरा केंद्र में इस फसल को लगाया गया है। यह फसल 4-5 महीने में तैयार हो जाती है और इस फसल के बीज से निकाले गए तेल से बायोडीजल और बायोजेट ईंधन बनाया जा सकता है।

सीएसआईआर भारतीय पेट्रोलियम संस्थान की इस परियोजना से सीएसआईआर के विभिन्न संस्थानों तथा राज्य सरकार के सहयोग से बायोडीजल यूनिट को देश के विभिन्न क्षेत्रों में लगाने का प्रयास किया जा रहा है। सीएसआईआर भारतीय पेट्रोलियम संस्थान में कार्यरत वरिष्ठ वैज्ञानिक डा.जयंति त्रिवेदी ने बताया की ब्रेसिका केरीनाटा के बीज में 30 से 40 प्रतिशत तक तेल है और इससे लगभग एक टन प्रति हेक्टेयर तेल का उत्पादन किया जा सकता है।

परियोजना के अगले चरण में सीएसआईआर भारतीय पेट्रोलियम संस्थान की पेटेंटेड तकनीक पर आधारित बायोडीजल यूनिट को लगा कर खेत मे ही बायोडीजल बनाया जायेगा। सीएसआईआर भारतीय पेट्रोलियम संस्थान के वरिष्ठ प्रधान वैज्ञानिक डा.नीरज आत्रेय ने बताया कि इस फसलों से ना केवल बायोडीजल बनेगा बल्कि किसानों की आय में वृद्धि होगी। सीएसआईआर भारतीय पेट्रोलियम संस्थान के निदेशक डा.अंजन रे ने जानकारी दी की ब्रेसिका केरीनाटा एक अल्प अवधि की तेल समृद्ध वैरायटी हैं जो राष्ट्रीय जैव नीति 2018 के लक्ष्य को पूरा करने में सहायता करेगी। परियोजना से बायोडीजल में प्रयोग होने वाले फीडस्टक की समस्या का निदान संभव है।

उन्होंने बताया कि अतिरिक्त ऊर्जा स्त्रोत विभाग, उत्तर प्रदेश के सहयोग से इस प्रयास को उत्तर प्रदेश में गांव-गांव तक पहुंचाया जायेगा। राष्ट्रीय वनस्पति अनुसंधान संस्थान लखनऊ के निदेशक डा.प्रबोध कुमार त्रिवेदी व मुख्य वैज्ञानिक डा.एसके तिवारी ने इस कार्य में सहायता प्रदान की।

Published in:

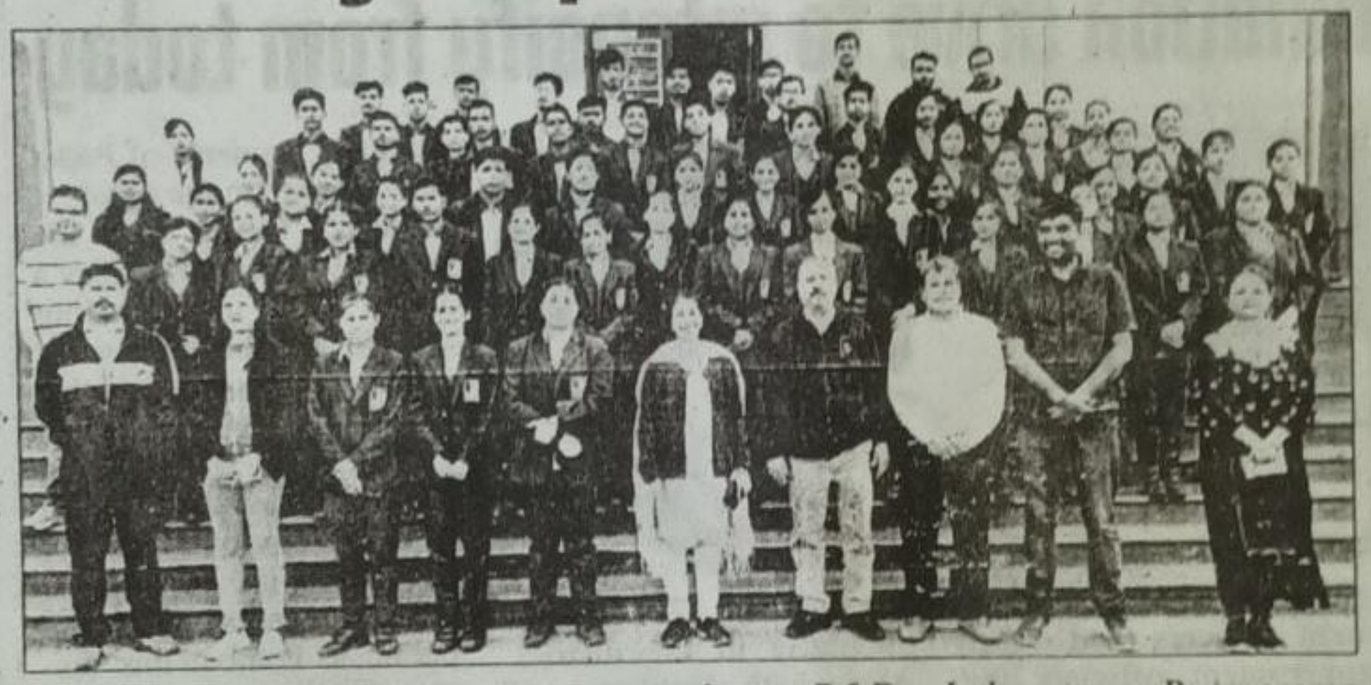
Rashtriya Sahara, Dehradun Jagaran

CSIR-NML

01st December, 2022

JPS Baridih students get exposure to R&D environ at CSIR-NML

Mail News Service



Jamshedpur, Nov 30: A group of 60 students from Jamshedpur Public School, Baridih accompanied by two teachers visited the CSIR-NML under the CSIR-Jigyasa program envisaged with the objective of making learning of science interesting. The purpose of organizing such visits was to exchange information and encourage participation of students in developing innovative scientific content on a virtual platform.

The inaugural session of the one day programme was addressed by Chief Scientist and Head, RPBD at CSIR-NML, Dr SK Pal. Dr Animesh Jana gave a brief introduction to CSIR as an organization and NML as one of the premier laboratories under CSIR. He informed the participants about the organizational structure and main activities of CSIR-NML with five core R&D divisions, three R&D support divisions, workshops, and other research facilities. He also discussed the difference between education and skill. Dr Aniket Dutt from the KRIT Division team on CSIR-Jigyasa Virtual Laboratory Programme spoke on target beneficiaries and locations of the program, the objectives and the school-centric events that were being organized under this program.

The various programmes under the Jigyasa event included Scientists and Science Teachers' Conclave, Teachers' Training on Innovation, Adoption of ATL (Atal Tinkering Laboratory) schools and Popular Lecture Series.

Chief Scientist, CSIR-NML, Dr VC Srivastava, delivered a talk in Popular Lecture Series on "Science, Technology, Society, and Environment: Our responsibility." The team helped the students and teachers to subscribe to the YouTube channel of Jigyasa program.

The day-long program included a visit to Engineering Division, KRIT Division, CSIR-NML museum and 3D Printer facility. (W-gs)

Published in:
The Avenue

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