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"Change of mindset and exploration of regional resources are the key to StartUps in Jammu & Kashmir", says Dr Jitendra Singh





"Change of mindset and exploration of regional resources are the key to StartUps in Jammu & Kashmir". This was stated by Union Minister of State (Independent Charge) for Science and Technology, Minister of State (Independent Charge) for Earth Sciences, MoS PMO, Department of Atomic Energy and Department of Space, and MoS Personnel, Public Grievances, and Pensions, Dr. Jitendra



Singh while addressing the valedictory function of the 2-day National StartUp Conference RASE 2024 at National Institute of Technology(NIT) Sringar, today.

Dr. Jitendra Singh said, the StartUp movement in India has picked up in a big way in the last one decade and the credit for this primarily goes to Prime Minister Narendra Modi who gave a call 'Start-up India Stand-up India' from the ramparts of Red Fort during his Independence Address. At that time, he recalled, the number of Start-ups in the country was just 350-400 and today it has gone up to 1.5 lakh while India is rated number 3 globally in the StartUps. Somehow, Dr. Jitendra Singh said, in the earlier years StartUp movement did not catch up with an equal pace in this part of the country. He said, this has also been so because of the fact that in some of the states and UTs like Jammu & Kashmir, for several decades government job or Sarkari Naukri has been the main source of livelihood and that has conditioned the mindset of the youngsters as well as the parents. It is, therefore, important to create awareness that Rozgar does not mean only Sarkari Naukri and that some of the Start-up avenues may be more lucrative compared to the salaried government job, he said.

Emphasising the need to explore the regional resources, Dr. Jitendra Singh said, somehow the





mindset gets stuck up with IT when we talk of Start-ups whereas in a region like Jammu & Kashmir the agriculture sector should be the main area of Start-ups. Citing the example of Aroma Mission, he said, the Purple Revolution was born from small towns of Bhaderwah and Gulmarg, and is now being talked about countrywide while the Purple Revolution Tableau was also displayed on 26th January parade at Kartvya Path, New Delhi. He said, nearly 5000 youngsters have taken up lavender farming as agri Start-ups and are making handsome income. Encouraged by them, he said, some of the youngsters working in the corporate sector have also left their job and turned to lavender farming. The success of the aroma mission is vindicated from the fact that the example of J&K is also now being emulated by Uttarakhan, Himachal Pradesh and some of the Northeaster States, he added.

As far as J&K is concerned, Dr. Jitendra Singh said, it could be possible to explore the areas of agri Start-ups also in floriculture sector for which the CSIR has started a floriculture mission. He also referred to handcraft horticulture and textile Start-ups as rich domains of J&K. Dr. Jitendra Singh said one of the important catalysts for startup success was a close integration between academia, research, industry and for this he called upon the various research institutes as well as the industrial agencies to come together on a single platform. He said, to begin with, the different institutions in J&K ranging from CSIR, IIT, IIM, AIIMS, SKIMS, SKUAST, NIT, Government Medical Colleges, could come together for joint StartUp endeavours.

The Minister spoke to the audience about the need for a fundamental shift in thinking to

propel India's economy toward the goal of a 'Developed India' by 2047. He emphasized the importance of linking academic institutions such as SKIMS Soura, AIIMS, IITs, IIMs, and GMCs with industry partners to ensure sustainable growth and foster a supportive environment for startups. Dr. Jitendra Singh also reaffirmed the Ministry of Science and Technology's commitment to supporting StartUps. He highlighted the government's efforts to encourage innovation and entrepreneurship in various sectors in J&K.

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NIT-CSIR-NGRI ink pact for research





The National Institute of Technology (NIT) Raipur and the CSIR-National Geophysical Research Institute (CSIR-NGRI) Hyderabad have signed a Memorandum of Understanding (MoU) with a motive to step ahead towards advancing research in geophysics, geology, and energy extraction from natural resources. The agreement signed by NIT Raipur and CSIR-NGRI outlines key



areas of operation.

They will work together on research projects in geophysics, geology and energy extraction from natural resources. Both institutions will promote joint research programs and offer consultancy services, using their combined expertise. They will set guidelines for sharing intellectual property from their collaborations. The agreement also allows for cooperation in other mutually beneficial areas.



Times of India





Endemic dengue may have helped stem severity of early COVID wave in India: study





Can the dengue virus beat the coronavirus and is it why the early wave of the pandemic in 2020 resulted in fewer COVID deaths or severe infections compared to Europe or North America where dengue is not endemic? Research from the CSIR-Indian Institute of Chemical Biology, Kolkata hints at these intriguing possibilities following an analysis of antibodies from people infected with dengue and testing them against a kind of coronavirus called murine hepatitis virus (mouse coronavirus). In research settings, this virus — being part of the same family of human coronaviruses — is considered a good surrogate to study the behaviour of the coronavirus strains that infected people during the pandemic.

Their results, published in the peer-reviewed Journal of Medical Virology this week, suggest that the antibodies following a dengue infection were able to 'neutralise' these coronavirus. For their analysis, the scientists relied on a combination of computer-modelling studies as well as cell-culture studies, the latter demonstrating how antibodies from dengue were able to engulf and bind the coronavirus proteins. However, this protective effect did not necessarily expand to all coronavirus variants. These latest studies build on the lab's work from 2020 that blood tests specific to check for dengue sometimes led to a positive SARS-CoV-2 test.

"We experimentally demonstrated that serum samples from dengue patients have the potential to bind to and "mask" the surface of several coronaviruses, including SARS-CoV-2. We performed "virus neutralization" tests in cell cultures and showed that such "masking" by dengue antibodies can indeed, block coronavirus entry into susceptible cells," Dr. Subhajit Biswas, Principal Scientist and the main author of the study, told The Hindu.

The dengue family of viruses are different from the coronavirus family and hence infection from one, in normal circumstances, is not expected to protect against the other. What is known about dengue is that there are four major serotypes, or strains, that cause dengue





infections. Strains Denv-1 and Denv-2 are the most common in India. However, being infected with one does not protect against the other and, in fact, a re-infection involving a different strain can be more dangerous — a phenomenon called antibody-dependent enhancement (ADE) in dengue. Whether the prevalence of dengue in dengue-endemic countries of Southeast Asia may be triggering newer mutations in the coronavirus is a factor that needs to be investigated more extensively, the authors suggest in their study.

That the early stages of the pandemic saw a decline in dengue in India has been independently reported. The National Vector Borne Disease Control Programme of India reported a sharp decline of 75% (39,419 versus 1,57,315) in dengue incidence during 2020 as compared with 2019. "The possible reasons for this reduction could be lower transmission of the vector, less exposure due to COVID-19 lockdown, and, potentially, a disparity in the reported data possibly due to underdiagnosis or underreporting because of increased attention to the COVID-19 pandemic," said a 2021 study in the American Journal of Tropical Medicine and Hygeine. "In this paper, we provided several pieces of experimentally obtained evidence that pre-existing dengue immunity might have played some protective role in reducing the COVID severity and mortality in dengue-prone regions like Southeast Asia compared to regions where dengue does not occur frequently, like Europe and North America. Perhaps this is why, historically, human coronaviruses have been rarely encountered as a causative agent of "severe acute respiratory infections, SARI" from India, highly endemic for dengue virus," he added.

The dilemma was whether the cross-reactive antibodies would provide partial protection

against severe dengue infection or lead to increased severity due to the well-known phenomenon of antibody-dependent enhancement seen in dengue. We hypothesize that the presence of antibodies to SARS-CoV-2 might decrease the severity of dengue. Larger multicentric clinical studies or population data from dengue endemic regions might help in understanding the existence of the cross-reactive, cross-protective association between these two single-stranded, positively coiled +SS RNA viruses.

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The Hindu





IIIM conducts Faculty Development Programme





A two-day workshop sponsored by SERB, DST under the "Scientific Social Responsibility" programme was organized by CSIR-IIIM at its Branch Srinagar from June 28, 2024 to June 29, 2024. The workshop was designed to impart technical training to the 25 faculty members from 13 different colleges of Kashmir and focused on the Application of Real-Time PCR and High Performance Liquid Chromatography.



In the inaugural session, Dr Phalisteen Sultan while welcoming the participating faculty members gave insights into the proceedings of this two-day workshop and expressed his gratitude to them for their active participation in the workshop. Dr. Syed Riyaz-Ul-Hassan, Coordinator of the workshop, in his introductory address highlighted the importance of the workshop for pursuing academic excellence in higher education and developing collaborative research programmes between the Academic Institutes and CSIR-IIIM. This was followed by a presentation on the overview of CSIR, India and CSIR-IIIM, by Dr. Qazi Parvaiz Hassan, who highlighted the transformative role of CSIR in Healthcare, Agriculture, and Drug discovery. He also enlightened the participants about the achievements and contributions of CSIR-IIIM in drug design and development, human resource development, and the promotion of various societal developmental initiatives through the cultivation and value addition of medicinal and aromatic plants.

During the technical session on the first day, Dr. Syed Riyaz-Ul-Hassan gave a detailed presentation on "Applications of Real-Time PCR in the Quantification of Gene Expression and Microbial Diagnostics", followed by a practical demonstration and Hands-on training on





RT-PCR. On the second day of the programme, Dr. Khurshid A. Bhat, presented a detailed overview of chromatographic techniques, chemical analysis of phyto-constituents, operation, basics and applications of HPLC, GLC and NMR, followed by a practical demonstration and hands-on training in chromatographic techniques. The participants also visited different divisions of the Institute and interacted with scientists and research scholars to obtain insights into the Institute's current research activities and projects.

In the valedictory address, Dr. Zabeer Ahmed, Director CSIR-IIIM, emphasised on the importance of effective science communication and outreach for better translation of research and technological advances. He highlighted the pivotal role of CSIR-IIIM in implementing the broader domain of scientific and technological outreach initiatives for overall societal development. He also highlighted the importance of translational research in the present context of scientific discoveries and the need for novel innovations and their deployment for national development. Dr Ahmed commended the organizers for devising an impactful workshop that envisages to strengthen the scientific capacity of the College Faculty. The event was concluded with the award of participation certificates by the Director. A formal vote of thanks was presented by Dr. Syed Sajad Hussain who expressed his gratitude to the Director, participants, scientists, research scholars and other functionaries, including administrative and technical staff for their efforts in the successful conduct of the workshop. He also thanked Dr Fayaz A Malik, Dr Zahoor Ahmad Parry, Dr Qazi Parvaiz Hassan, Dr Muzamil Ahmad, Dr Nasheeman Ashraf, Dr Bilal Ahmad Bhat and other Scientists for presenting their research work to the participants during their visit to various divisions and laboratories of the Institute.



Thekashmirmonitor





Tribal women learn to makeincense sticks





A group of tribal women were trained in making incense sticks from floral wastes and other material by the scientists of the CSIR-Central Institute of Medicinal and Aromatic Plants (CIMAP) on Friday.

The training was part of the development programme on the production and value addition of essential oils for displaced women of Manipur.



"The training was organised jointly by CIMAP, Manipur govt, Sanganeria Foundation, Ultra International, and Hindu College, Delhi. As many as 30 women from different districts of Manipur participated in the event," said CIMAP director PK Trivedi.

Nenghoikin Changloi from Leimakhong expressed her gratitude to CSIR-CIMAP for providing training on the development of herbal products like incense sticks. "The move can change the lives of the people of Manipur," she said.

Another woman, Wonwung Kasomwoshi from Ukhrul, said, "We will start the cultivation of aroma crops in our areas."



Times of India





CSIR experts attend conference on Asian medicine in Taiwan





Dr Sudesh Kumar Yadav, Director, CSIR-Institute of Himalayan Bioresource Technology, (CSIR-IHBT) Palampur, and Dr Rakesh Kumar, Senior Principal Scientist at CSIR-IHBT, recently participated in the double 10th joint conference of International Association for the Study of Traditional Asian Medicines (IASTAM) and Asian Society for the History of Medicine (ASHM) in Taipei,

The Psychometrics + Informatics (pi) Lab Washington University in St. Louis



Taiwan. IASTAM and ASHM are the world's foremost community devoted to advancing the study of Asian medicine.

Over 300 scientists, practitioners, historians, experts from 29 countries participated in the conference. Dr Sudesh chaired one of the sessions, while Dr Rakesh delivered an invited panel speech. He highlighted the advancements and potential of CSIR-IHBT's research in the field of medicinal plants from Himalayas. He discussed the traditional system of Indian medicine and briefed the audience about the institute's activities, including bio prospection of Himalayan medicinal plants, preparations of standard extracts, in vitro analysis of phyto molecules and bioactivity assays of promising plant fractions though in silico/in vivo/ex vivo.

In addition to their active participation at the conference, the CSIR-IHBT delegation visited the National Research Institute of Chinese Medicine (NRICM) in Taipei. This visit provided an opportunity for scientific exchange and collaborative discussions with their Taiwanese counterparts.

They interacted with Mr Manharsinh Laxmanbhai Yadav, Director General (Ambassador) of





the India Taipei Association (ITA) and his staff. The discussion focused on exploring collaborations between CSIR-IHBT and Taiwanese institutions. Reflecting on the experience, Dr Sudesh expressed optimism about the outcomes of the conference and the potential for future collaborations, stating, "The double tenth conference has been a remarkable platform for sharing our research and exploring synergies with international partners, especially in the realm of traditional medicines/products. The interaction with the Director General of ITA has proven to be a fruitful endeavour."











CSIR-NGRI presents geothermal energy innovations in Raipur





The Council of Scientific and Industrial Research-National Geophysical Research Institute (CSIR-NGRI) hosted an interaction meet on geothermal energy at the state-run Pt. Ravishankar Shukla University in Raipur, on Thursday. Focused on the Tatapani Geothermal Province, a region in Chhattisgarh with promising potential for geothermal energy development, the objective of the meet was to showcase CSIR



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technologies and knowledge base to stakeholders and academic institutions.

Dr. Prakash Kumar, director of CSIR-NGRI, highlighted the significance of geothermal energy and emphasized its clean and sustainable nature, positioning it as a crucial resource for India's goal of achieving net-zero emissions by 2070. He noted that the interaction meet is part of the One Week One Theme (OWOT) celebrations under the energy and energy devices (EED) theme. The inaugural function of OWOT was held in New Delhi on June 24, graced by Dr. Jitendra Singh, minister for science and technology, and Dr. Kalaiselvi, director general of CSIR.

The event featured technical presentations by leading scientists, covering various aspects of geothermal energy. The presentations showcased the results of nearly four decades of research at the Tatapani Geothermal Province, underscoring the need for subsurface geophysical mapping to assess the heat source's sustainability. CSIR-NGRI is currently conducting integrated geophysical surveys to develop a model for deep drilling. The goal is to establish a pilot power plant with a capacity of 100 MW.





The event also featured poster exhibitions and a model display. Over 120 delegates participated, including representatives from central and state govt organizations CREDA, DGM, ONGC, GSI, CGWB, RGWTRI and students from various colleges, universities, and institutes.





Times of India



The Council of Scientific and Industrial Research – Indian Institute of Petroleum successfully concluded "One Week, One Theme" Campaign on Energy and Energy Devices Theme 28th June, 2024 CSIR-IIP, NCL, AMPRI, NPL, NIIST, CBRI, CSIO

The Council of Scientific and Industrial Research - Indian Institute of Petroleum (CSIR-IIP) successfully concluded the "One Week, One Theme" campaign, which focused on the pivotal theme of Energy and Energy Devices (EED) today at IIP Dedradun. Following the success of the 'One Week One Lab' (OWOL) program conducted by all CSIR laboratories in 2023, Dr Jitendra Singh, Hon'ble Minister (S&T), proposed the observance of the 'One Week One Theme' event in 2024. The OWOT event aims to showcase innovative approaches and technological advancements developed by CSIR laboratories focused on each of the eight themes of CSIR. Each Theme's road map and activities focus on substantial contributions toward public, private, strategic, and societal benefits.



The EED Theme is very important for ensuring the country's economic growth by fulfilling the energy requirements and, at the same time, meeting the UN's sustainable development goals. The verticals in this Theme are Hydrogen, Batteries (and other energy storage technologies), Alternative fuels (with a particular focus on biofuels), Solar and Wind (with a specific emphasis on non-silicon and offshore technologies) and many CSIR labs are participating in the various R&D programs in this Theme.

The OWOT campaign of EED Theme was kicked off on the 24th of June in CSIR-NCL Pune. The theme-based week-long activities showcased innovative approaches and technological advancements across the CSIR laboratories and featured various activities such as technical sessions, outreach programs, exhibitions, and media interactions.





The valedictory function, held on 28th June 2024 at CSIR-IIP, marked the culmination of an intensive week of discussions, knowledge-sharing, and collaborative exploration of innovative solutions to the pressing challenges in energy and energy devices.

Dr. H.S.Bisht, Director CSIR-IIP, emphasized on the energy-efficient technologies recently

developed and successfully commercialized by CSIR-IIP. He mentioned that CSIR-IIP is determined to create new products, processes and technologies that will help enhance our country's energy security.

On the occasion, Dr. Ashish Lele, Director CSIR-NCL and Theme Director EED Theme mentioned that it focuses on developing technologies for utilizing and harnessing Green hydrogen, photovoltaic batteries, etc.

In his address, Shri. Rajiv Agrawal, Director Technical, Engineers India Ltd presented the collaborative work being undertaken by CSIR-IIP and EIL on the commercialization of Sustainable Aviation Fuel (SAF) at the Mangalore Refineries and Petrochemicals Ltd. He also presented his views on the new and cleaner energy sources, including Green Hydrogen, 2G Ethanol, etc., and the initiatives being undertaken by EIL in commercializing these technologies.

Dr. M.O. Garg, President Petchem R&D, Reliance Industries Ltd. emphasized the importance of the engineering partner in taking up the laboratory-level technologies to the market level.

During the technical session, the participants and speakers from participating CSIR laboratories presented their challenging research work. The scientists from CSIR-CSIO, CSIR-AMPRI, CSIR-NPL, CSIR-NIIST, and CSIR-CBRI presented their work in the energy domain.

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Pib





Teacher-Training Program at CLRI- CHENNAI

CSIR-CLRI, NIScPR,





CSIR-Central Leather Research Institute, Chennai organized a 5-day teacher-training program "Cultivating Scientific Temperament through Innovative Leather Technology and Sustainable Practices" from June 24–28, 2024 in association with Knowledge and Awareness Mapping Platform (KAMP) an alliance partner of the CSIR- National Institute of Science Communication and Policy Research (CSIR-NIScPR), with Industrial Partner M/S Nysa Communications Pvt. Ltd. (NCPL), Noida.

The program was inaugurated on 24th June, 2024 and participants were introduced to the

extraction of collagen from hides/skins and importance of leather research activities and opportunities in CSIR-CLRI, which enlightened the teachers from different streams.

During the training period, various lectures were organised on (1) Significance of leather and its impact on national growth in terms of revenue and employment generation, (2) Need of new footwear sizing system for India and its advantages, (3) Management of liquid and solid waste of the industries as well as domestic using circularity model, (4) Usages of leather-like materials derived from agricultural waste and (5) Healthcare research activities and products





by the Scientist of the Institute. Further, Demonstrations conducted on Leather processing, leather product making, pattern making for leather bag, and removal of hairs from leathers using the enzymes by the technical expert team of the CSIR-CLRI. More than, 250 teachers from top 25 CBSE and ICSE schools in and around Chennai, participated in this 9th Professional Development program

Professional Development program.



CSIR innovation: New compact utility tractor can help uplift the small and marginal farmers

A newly developed compact, affordable and easily manoeuvrable utility tractor catering for small and marginal farmers could help them increase agricultural productivity while keeping the cost low. An MSME has planned to set up a manufacturing plant for mass production of tractors for supply to farmers. Marginal and small farmers comprise over 80 per cent of cultivators in India. A large population of them

still depend on bullock-driven farming in which operational costs, maintenance costs and poor returns pose a challenge. Though power tillers are replacing bullock-driven ploughs, they are cumbersome to operate. Tractors on the other hand are unsuitable for small farmers and unaffordable for most small farmers.

In order to address these challenges, CSIR-Central Mechanical Engineering Research Institute (CSIR- CMERI) based in Durgapur, West Bengal, has developed a compact, affordable and easily manoeuvrable tractor of low horsepower range to meet the requirement

of the marginal and small farmers, with support from the SEED Division of Department of Science and Technology (DST), Government of India.

They have promoted the technology among several existing self-help groups (SHGs), and efforts were made to create new SHGs, particularly for this technology. CSIR- CMERI is also discussing licensing it to local companies for large-scale manufacturing so that the benefits can reach the local farmers.

The tractor has been developed with a 9 hp diesel engine with 8 forward and 2 reverse speeds,

PTO with 6 splines @540 rpm. The total weight of the tractor is around 450kg, having front and rear wheel sizes of 4.5-10 and 6-16 respectively. The wheelbase, ground clearance, and turning radius are 1200 mm, 255mm, and 1.75m respectively.

It can help speed up farming, finishing it in a few hours in comparison to the several days that the bullock cart needs and also reduces the capital and maintenance costs of farmers. Hence, the affordable compact utility tractor could replace the bullock-driven plough for small and marginal farmers.

The technology was demonstrated in nearby villages and to various manufacturers. A Ranchibased MSME has shown interest in manufacturing it by setting up a plant for mass production of the tractor. They plan to supply the developed tractor to farmers through different state government tenders at subsidised rates.

What goes into Puri Jagannath's floral dress?

Lucknow-based National Botanical Research Institute (NBRI)-Council of Scientific and Industrial Research (CSIR) institute has set out to revive endangered flower species used in the 12th century Shree Jagannath Temple, Puri, Odisha.

A year after NBRI signed a Memorandum of Understanding with Shree Jagannath Temple Administration (SJTA), to cater to the needs of flowers raised in the temple throughout the year, the country's premier botanical research institute (NBRI) has supplied Maurya and davana (Dayana) species flowers for the temple.

"We are studying various scriptures that detail the practices of the Shree Jagannath Temple. This temple's rich traditions involve the extensive use of flowers and leaves, each selected for specific rituals performed in the temple. However, many of these plant species are rare and difficult to procure," said Ajit Kumar Shasany, Director, CSIR-NBRI, Lucknow.

Dr, Shasany said, "we have undertaken a mission to ensure the availability of these sacred flowers. Through this endeavor, we also aim to revive endangered floral species, preserving both the temple's traditions and the biodiversity of these plants."

As per the demand, quality planting materials of marigold, tuberose, tulsi, jasmine, davana (Dayana) were supplied and introduced in the Matitota garden of the temple for raising these plants for their use for worshipping purposes.

"The gardeners are periodically trained about the agro-practices for raising these plants. A poly-house has been raised in this garden for continuously raising the plants throughout the year," NBRI said.

"Besides, Namoh 108 variety of lotus, released by CSIR-NBRI, was also introduced in the Koili Baikuntha garden of the temple. All these aromatic flower and foliage plants are in much demand in the temple as these plants are in use in daily rituals," NBRI said.

"The most important decoration of the deities in the day is the Bada Singhara Besha. It is done every night before the Ratri Pahuda (last ritual). Bada Singhara Besha is usually made up of different types of floral ornaments," NBRI research said.

"Deities are decorated with floral ornaments such as Adhara, Jhumpa, Chandrika, Tilaka, Hruda Padaka, Kara Pallav, Guna, Gava and a number of garlands, some of these are intermixed with Tulsi leaves," it said.

"Moreover, the floral ornaments such as 'Nakuasi' and 'Nakachana' are put on the noses and 'Adharmala' are made to be hung around the arms. Below this, another garland hangs which is called 'Chausaramala'. Three huge attractive lockets called as 'Hruda Padaka' are stuck to the middle of the chest of three deities. So, the flower and floral decoration has a great significance in the daily rituals of Lord Jagannath," the institute said.

Apart from catering to the demand for flowers, NBRI created two unique gardens – 'Nabagraha Vatika', displaying the planet-specific plants in the garden and 'Surya Vatika' with brilliant floral colours, indicating the rays of the sun.

First half-yearly TOLIC meeting held at CSIR-IIIM

First half-yearly meeting of the Town Official Language Implementation Committee (TOLIC), Jammu for the financial year 2024-25 was held on June 27, 2024 at CSIR-Indian Institute of Integrative Medicine (CSIR-IIIM), Jammu. Dr. Zabeer Ahmed, Director, CSIR-IIIM and Chairman, TOLIC, Jammu chaired the meeting in which 50 representatives from various member offices of TOLIC, Jammu were present.

The main objective of this meeting was to review the Hindi related work of the last two quarters of the member institutions of the committee and to collect their other important information for uploading it on the official TOLIC portal of the Ministry of Home Affairs.

Sanjay Sharma, Member-Secretary, TOLIC, Jammu commenced the meeting with a review of various Central Government offices located in Jammu region. The review was done on the basis of quarterly progress reports submitted by member institutions during the period October-December, 2023 and January-March, 2024. Later, the attendees discussed the topics of progressive use of Hindi in their respective offices and making necessary improvements in the implementation strategies.

Dr. Zabeer Ahmad, Director, CSIR-IIIM, Jammu, in his address emphasized the important role of Hindi in the functioning of Central Government offices while stating its pervasive approach that goes beyond the boundaries of religion, culture and departments. He encouraged the members to actively participate in the meetings of TOLIC and contribute to the annual contribution of TOLIC.

Further, Dr. Ahmed suggested that some necessary sub-committees should be formed under TOLIC, Jammu to enhance coordination among the member offices which will not only lead to significant improvement in Hindi implementation but will also help in solving communication related problems. Underlining the ultimate objective of TOLIC to promote Hindi, he expressed hope for an increase in its various activities in the future and concluded his address

with a positive note.

An interactive session was also held in the meeting in which the participants shared their suggestions and feedback. Acting on the suggestion of the Chairman, after mutual discussions among all the members present in the meeting, a total of three special sub-committees were formed which will focus on some special aspects of various activities of the members of TOLIC, Jammu.

The meeting was attended by officers and employees of various offices of TOLIC, Jammu, among whom Sheela Ravi, Regional Director, National Institute of Open Schooling, Jammu; Sanjay Sharma, Member Secretary, TOLIC, Jammu; Rajesh Gupta, Administrative Officer, CSIR-IIIM, Jammu.

The proceedings of the meeting were conducted by Sanjay Sharma, TOLIC, Jammu and vote of thanks was presented by Rajesh Gupta, Administrative Officer, CSIR-IIIM.

Risingkashmir

27th June, 2024

Seven CSIR Labs Inaugurates One Week One Theme Campaign On **Energy And Energy Devices Theme**

CSIR-CIMFR, NGRI, CSMCRI, CECRI, CMERI, CGCRI, NCL

After the inaugural of One Week One Theme (OWOT) Campaign and its logo by Hon'ble Union Minister of State for S&T Dr. Jitendra Singh in the presence of DG CSIR Dr. N. Kalaiselvi at India habitat Centre, Delhi, all CSIR labs are organizing programs on OWOT (Energy and Energy Devices) at their respective institutes. On 27 June 2024, 7 CSIR labs has organized theme based activities. The OWOT campaign is based on 8 themes of CSIR in which all 37 CSIR labs will organize programs of particular themes.

CSIR-Central Institute of Mining and Fuel Research (CSIR-CIMFR), Dhanbad has organized Two-Day Workshop on Challenges and Opportunities in Gasification CARING-2024 as a part of CSIR One Week One Theme programme-Energy and Energy Devices theme. It focused on the challenges and opportunities in gasification. This event, held on June 26-27, 2024, at the CSIR-CIMFR Digwadih Campus, brings together industry leaders, researchers, policymakers, and stakeholders to explore the

complexities and potential of gasification technology. With over 75 participants from various organizations such as Coal India Limited (CIL), Steel Authority of India Limited (SAIL), Jindal Steel and Power Limited (JSPL) Angul, Hindalco Industries, Thermax, and others from across India, the workshop is set to be a significant event in the field of gasification.

CSIR-National Geophysical Research Institute (CSIR-NGRI), Hyderabad has organized an Interaction Meet on Geothermal Energy as a part of the One Week One Theme (OWOT) celebrations of CSIR under the theme Energy and Energy Devices (EED). The program is being organized in collaboration with Chhattisgarh State Renewable Energy Development Agency

(CREDA), Pandit Ravishankar Shukla University (PRSU), and National Institute of Technology (NIT) Raipur. Experts from various organizations involved in geothermal exploration and development will be presenting a series of lectures. These presentations will cover the current status and future roadmap for harnessing geothermal resources in India, with a particular focus on the potential of the Tattapani Geothermal Province, Chhattisgarh.

CSIR- Central Salt and Marine Chemicals Research Institute, (CSIR-CSMCRI) Bhavnagar, hosted a showcase on the latest advancements in hydrogen, batteries, alternate fuels, and solar energy as part of the CSIR One Week One Theme programme focusing on Energy and Energy Devices. This event highlighted cutting-edge research and innovations driving sustainable energy solutions. Participants had the opportunity to explore technological developments and applications in these critical areas, fostering collaboration and knowledge exchange among scientists, industry experts, and stakeholders.

CSIR-Central Electrochemical Research Institute, (CSIR-CECRI) Karaikudi, has organized a display on hydrogen and batteries under the Energy and Energy Devices theme of the CSIR One Week One Theme programme. This event showcased innovative research and developments in hydrogen energy and battery technologies. Attendees gained insights into the latest trends and future directions in these fields, promoting discussions on sustainable energy solutions and the potential for large-scale implementation of these technologies.

CSIR -Central Mechanical Engineering Research Institute, (CSIR-CMERI) Durgapur, focused on hydrogen technology as part of the Energy and Energy Devices theme for the CSIR One Week One

Theme programme. The event featured detailed presentations on hydrogen production, storage, and utilization technologies. Industry leaders, researchers, and policymakers came together to discuss the challenges and opportunities in the hydrogen sector, exploring its role in achieving a sustainable energy future.

CSIR-Central Glass & Ceramic Research Institute, (CSIR-CGCRI) Kolkata, showcased advancements in hydrogen – SOFC-SOEC, photo catalysis, and solid-state batteries under the Energy and Energy Devices theme of the CSIR One Week One Theme programme. This event highlighted the latest

research and technological innovations in these areas, offering a platform for experts to share insights and explore collaborative opportunities. The focus was on the potential applications and impact of these technologies on sustainable energy solutions.

CSIR-National Chemical Laboratory, (CSIR-NCL) Pune, hosted a symposium on "Catalysis and

Renewable Energy towards meeting Sustainable Development Goals (SDG)" under the Energy and Energy Devices theme of the CSIR One Week One Theme programme. This event concentrated on alternative fuels, featuring presentations and discussions on the latest advancements in catalysis and renewable energy technologies. The symposium promoted the exchange of knowledge and fostered collaborations to address global energy challenges and support sustainable development.

Next theme of CSIR's OWOT campaign on 'Chemicals and Petrochemicals' will be organized from 15th to 20th July 2024.

CSIR-CIMFR hosts workshop on Coal Gasification

The Central Institute of Mining and Fuel Research (CSIR-CIMFR) is holding a two-day workshop, CARING-2024, in its Digwadih Campus to explore the challenges and opportunities in coal gasification technology, a PIB press release stated.

The event, which is expected to draw 75 participants from industry, research, and government, will focus on key aspects of gasification technology, including the production of methanol, chemicals, fertilizers, and liquid fuels. The workshop was formally opened by Dr. Arvind Kumar Mishra, Director of CSIR-CIMFR, on June 26.

In his speech, Dr. Mishra highlighted the importance of coal in the global energy mix and the potential of gasification to produce valuable products that can help India achieve its energy goals of promoting sustainable growth and energy security.

The two-day workshop, under the CSIR One Week One Theme-Energy and Energy Devices Program, aims to promote collaboration, innovation, and knowledge sharing among participants. It will provide a platform for stakeholders to discuss advancements, address challenges, and explore opportunities in gasification technology, ultimately contributing to India's energy security and sustainability. The workshop will also explore the potential of

gasification to enable India to achieve its target of 100 MT coal gasification by 2030.

Published in:

Goan researcher earns CSIR-ASPIRE laurels

Goan researcher Dr Neena Panandikar has earned laurels for the state as she has been selected as one among 300 women scientists under the CSIR-ASPIRE scheme, a central government's initiative that aims to empower and encourage women in the field of scientific research.

Her research aims to contribute to sustainable development by the reduction in consumption of cement and using alternative suitable material. The Council of Scientific and Industrial Research (CSIR), under its ASPIRE scheme, made a special call for research grants only to women scientists across the country.

The call was for allocation of grants to facilitate research and development in the major disciplines of science and engineering – life sciences, chemical sciences, physical sciences, engineering sciences and inter or trans disciplinary sciences.

Dr Panandikar, who is also the principal of the Don Bosco College of Engineering, Fatorda, was selected among 53 women researchers in the discipline of engineering sciences and 300 women researchers in all five categories.

Speaking to 'The Navhind Times', Panandikar called it an honour. "Being chosen as one of the 300 women scientists nationwide is an extraordinary honour. This recognition inspires me to continue pushing the boundaries of continuous learning and contributing to research. I recognise that this achievement is also due to the incredible support from my management, colleagues and mentors," she said.

Explaining her research subject, she said, "The aim is to contribute towards sustainable development by reducing the use of cement and utilising eggshell, crab shell and seashell waste. The research also aims at reducing glass waste going into landfill, and instead using

the glass waste as the replacement of sand. This project aims to recycle and process the waste and find feasibility of using it as fine aggregates for manufacture of bricks and blocks." As per CSIR norms, a junior research fellow (JRF) will be appointed to assist her with the research. "I have appointed Dr Shwetha Prassana, Professor and Head of the civil engineering department, as a coordinator. For the experimental analysis, a seashell crushing machine needs

to be fabricated.

This project was assigned to final-year mechanical engineering students as part of their project work. I am pleased to report that the machine has been successfully fabricated under the guidance of Dr Suraj Marathe," she said. Dr Panandikar thanked Dr Marathe and the students – Beven Correia, Sayam Talaulikar, Shreyas Silimkhan, Shreetej Kotharkar, and Yash Paul – for their excellent work on this project.

The tenure of the research proposal is three years. She has received the research grant of Rs 20 lakh to cover the costs associated with the appointment of a JRF, materials, equipment, institutional overheads, travel, and other miscellaneous expenses that may arise. The scheme is seen as a means for women to step up in the field of STEM.

"There has been a significant increase in the number of women pursuing careers in science, technology, engineering, and mathematics (STEM). Encouraging girls to pursue STEM from a young age is important. Women often face challenges in balancing work and family responsibilities, which can impact their career progression in demanding scientific fields.

Initiatives like scholarships, mentorship programmes, and dedicated grants and funding opportunities as initiated by the CSIR for women can propel women's advancement in scientific careers," said Dr Panandikar.

She advised women researchers that though the journey of scientific discovery is fraught with challenges and can be disheartening, rejections can be valuable feedback.

Published in:

Navhindtimes

NIO shares microbial technology with Cochin University

Goa-based National Institute of Oceanography (NIO) has transferred its advanced microbial consortia technology to MSortia LLP, a startup of Cochin University of Science and Technology, Kerala, on Tuesday.

In aquaculture, where fish and shrimp are raised in ponds, keeping the water \Box clean and safe is therefore crucial. But as more fish are grown in these ponds, managing wastewater becomes a challenge.

"Marine isolates were chosen from a pool of approximately 3,000 bacterial strains, isolated

from various marine ecosystems and maintained at the Marine Microbial Reference Facility at NIO's regional centre in Kochi," the NIO stated. They can break down waste in aquaculture ponds and help keep the water clean – called the microbial consortia technology.

This technology has been put to the test. "Extensive testing and validation were conducted in shrimp culture ponds across Kerala, Karnataka, and Gujarat, demonstrating the efficacy of the microbial consortia in improving water quality and promoting healthier aquatic ecosystems," the NIO stated.

The technology transfer agreement was signed on \Box Tuesday by NIO director Sunil Kumar Singh and managing partner of MSortia LLP Vrinda S.

Published in:

Times of India

Indian scheme to provide 300 research grants for women

Three hundred women in India have been selected to receive a research grant that will run over three years as part of a scheme to support and empower female scientists. The Council of Scientific and Industrial Research (CSIR) initiative is designed to encourage more women to participate in cross-disciplinary research, including the chemical sciences.

On International Women's Day 2023, the CSIR launched – for the first time – a special call for research grants for female scientists branded CSIR-ASPIRE which took in over 3000 submissions across the country. Eligibility criteria stated the principal investigator must be a woman actively carrying out R&D in science and engineering. After an independent review, the research committee chose 301 research proposals to support. The grants, which do not exceed INR2.5–3 million (\pounds 236,000– \pounds 282,000), will be provided for staff, contingency and minor equipment. The grant also subsidises international travel to enable global exposure and foster international collaboration.

At the announcement of the grants, Jitendra Singh, the minister for science and technology, stressed the importance of developing indigenous technologies and products, and encouraged the integration of public and industrial R&D with startups.

Chemistryworld

One-week National E-workshop On Innovation And Intellectual Property Rights By CSIR-IMMT: INTEC

As part of sensitization activities of CSIR-IMMT: InTEC is organizing a one-week National e-Workshop on Innovation and Intellectual Property Rights (NeW IPR-2024) with the theme IP for ALL from June 24-29, 2024 with a total of 24 lectures (4 sessions a day) delivered by experts from various fields covering the major aspects of Intellectual Property Rights with theory and practical exercises. This workshop received about 1800 registrations and participants include students, faculty, researchers, scientists, industry professionals and others from various parts of the country reflecting to the theme of the workshop IP for ALL. CSIR-IMMT organized the Diamond Jubilee One-day Workshop on "Opportunities and Challenges in Minerals & Metallurgical Research for Viksit Bharat " & One Week One Theme (OWOT) – Energy (EED) - Exhibition on June 26, 2024 along with poster display and exhibition. The event was graced by the Chief Guest, M.Akshaya, (IPS Retd., former DG of Police, Government of Odisha) along with Dr.Ramanuj Narayan (Director, CSIR-IMMT), Prof.T.Srinivas (former outstanding Scientist, BARC and Professor, HBNI), Prof.Madhusmita Das (Former Vice-Chancellor, FM University), Dr.Raghu Kumar (head, beneficiation, COE, AMNS). Dr.N K Dhal, Chief Scientist, Head E&S, CSIR-IMMT, Dr.T Paban Kumar Senior Scientist, CSIR IMMT, Dr.S K Biswal, Former Chief Scientist, CSIR-IMMT, Dr.B Das, Former Chief Scientist, CSIR-IMMT, Dr.A K Sahu, Former Chief Scientist, CSIR-IMMT, also participated and delivered their talk during the programme. Pankaj Kumar, DDG GSI delivered the valedictory address. Prof.Dr.D S Rao, Chief Scientist, and Head HRD, CSIR-IMMT was felicitated on this occasion.

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Council of Scientific and Industrial Research (CSIR) - National Physical Laboratory celebrates One Week One Theme Program on Energy & Energy Devices 26th June, 2024

Council of Scientific and Industrial Research (CSIR) is organizing weeklong activities on One Week One Theme (OWOT) in eight different themes across its 37 laboratories to showcase translatable research leads to marketable/valueadded technologies/products, enhancing interactions and connecting to stakeholders to enable ease of technology licensing. The targeted theme "Energy and Energy Devices

(EED)" is focused on conventional, non-conventional, sustainable, and innovative approaches for energy generation and storage solutions during 24-28 June, 2024 in New Delhi.

Council of Scientific and Industrial Research (CSIR) -National Physical Laboratory (CSIR-NPL) is also organizing two days event on 26th and 27th June, 2024, under the OWOT:EED program by displaying technical strengths and achievements in the areas of Photovoltaic Metrology, Flexible solar cells (Silicon & Perovskite), Energy gas (Hydrogen & Alternative Fuels) Metrology and Agricultural waste to Biocoal, through a series of events including

expert presentations, industry meet, laboratory visits, demonstration of working facilities etc.

Dr. Sushil Kumar, Convener of the event gave an overview of CSIR-NPL energy based technology driven research. He also spoke about OWOT:EED program of CSIR-NPL on Energy & Energy Devices. Dr. S.R. Dhakate, officiating director CSIR-NPL, emphasized on the importance of renewable energy and technology on solar, bio mass, hydrogen, and its potential to prevent global warming. Throwing some light on the contribution of CSIR-NPL on solar energy and converting bio-mass into bio-coal technology., he added that CSIR-NPL is going to provide primary reference solar cells calibration service in next 2-3 months and

asked solar industry to get benefit of it. About 40 participants from PV industry and 80 students from various institute participated in the event. A session on green energy, gas and biomass to biocoal on 27 June 2024.

One Week One Theme (OWOT) Programme for Energy (Conventional and Nonconventional) and Energy Devices (EED) theme of CSIR celebrated at CSIR-SERC

CSIR-SERC, NAL

26th June, 2024

As part of the One Week One Theme (OWOT) जिज्ञान सभागार Programme for Energy (Conventional and Nonconventional) and Energy Devices theme of ONE WEEK ONE THEME ENERGY & ENERGY CSIR, an event was organized under the Energy Infrastructure thrust area on 25th June 2024 from 2.00 PM to 5.30 PM at CSIR-SERC. Dr. M. V. Ramanamurthy, Advisor & Programme Head, Deep Ocean Mission, Ministry of Earth Sciences and Director, NCCR was the Chief Guest of the event. Dr. N. Anandavalli, Director, CSIR-SERC and Coordinating Director, CMC delivered the welcome address of the event. She told that Dr. Jitendra Singh, Honourable Minister (S&T) inaugurated this one week one theme (OWOT) campaign in Delhi on 24th June 2024. She informed that CSIR-SERC is working in the renewable energy area and as a part of the energy infrastructure thrust area, CSIR-SERC planned to celebrate the one week one theme (OWOT) event for Energy and Energy Devices (EED) theme of CSIR at CSIR-SERC. Ms. N. Ramya, Scientist, CSIR-SERC briefed about the background of the one week one theme (OWOT) Energy and Energy Devices (EED) event and also introduced the

chief guest.

The chief guest, Dr. M. V. Ramanamurthy discussed about the offshore wind potential areas (Tamilnadu and Gujarat) of India as well as the challenges associated with the offshore monopile installation in Gujarat. He also told about the dynamic challenges associated with the offshore floating platform installation. Dr. A. Subbulakshmi, Scientist, CSIR-SERC presented the key contributions of CSIR-SERC in Energy Infrastructure. She discussed about the works carried out on floating offshore wind turbine and floating offshore solar farm at CSIR-SERC during the project "ESagar - Engineering of Large Floating Offshore Structures

and Systems for Renewable Energy Farming". She also told about the ongoing projects of CSIR-SERC such as hybrid floating offshore wind and solar farm and agrivoltaics related to the energy infrastructure thrust area. Dr. Mohit Verma, Principal Scientist, CSIR-SERC introduced the keynote speakers Prof. M. A. Atmanand, Visiting Professor, IIT Madras, Director (Retd.), NIOT, Prof. S. Nallayarsu, Professor & Head, Department of Ocean Engineering, IIT Madras, and Dr. Purnima Jalihal, Head, Energy and Fresh Water, NIOT. Prof. M. A. Atmanand delivered the keynote lecture on the challenges for offshore floating wind energy platforms in India. He covered the major challenges such as platform stability in offshore environment, grid systems, anchors, infrastructure development, and funding for the project. Prof. S. Nallayarsu delivered the keynote lecture on offshore wind energy - key challenges. He told about the challenges regarding the crane availability for the installation of offshore wind turbine. He discussed about the cyclonic condition, problem due to corrosion, substation requirement for reducing the power loss, and cost economic study for fixed and floating platforms. Dr. Purnima Jalihal delivered the keynote lecture on offshore challenges in harnessing energy and fresh water from the oceans. She discussed about the low temperature desalination technology, wave powered desalination, floating wave energy devices, hydrokinetic turbines, ocean thermal energy conversion (OTEC) powered desalination, and cold water pipeline. Dr. Manabendra Manindrakumar De, Principal Scientist, CSIR-NAL presented about the CSIR-NAL wind energy harvesting efforts – past, present & future.

The panel discussion – way forward was also conducted as a part of the event on the innovation and cross-sector collaboration roles in advancing the renewable energy. The panelists were Dr. N. Anandavalli, Director, CSIR-SERC, Dr. S. Gomathinayagam, Director General (Retd.), NIWE, Dr.

Purnima Jalihal, Head, Energy and Fresh Water, NIOT, Prof. M. A. Atmanand, Visiting Professor, IIT Madras, Director (Retd.), NIOT, Prof. S. Nallayarsu, Professor & Head, IIT Madras, Prof. R. Panner Selvam, Professor, IIT Madras, Shri. S. Senthilkumar, Head, Structural Engineering, Zentech Offshore Engineering. All of them shared their views and thoughts on the renewable energy and way forward during the panel discussion. Finally, the vote of thanks was delivered by Dr. A. Subbulakshmi, Scientist, CSIR-SERC. The event was coordinated by Dr. A. Subbulakshmi and Ms. N. Ramya, scientists from CSIR-SERC.

Published in:

CSIR-NIScPR, NCL

Pune.

26th June, 2024

The Council of Scientific and Industrial Research (CSIR), under the Department of Science and Technology has organised 'One Week One Theme (OWOT)' campaign from 24 June 2024, across its 37 labs in India. Union Minister of State (independent Charge) for Science & Technology, Earth Sciences, MoS PMO, Ministry of Personnel public grievances and pensions, department of atomic energy and

space Dr. Jitendra Singh inaugurated One Week One Theme (OWOT) Campaign in the presence of DG CSIR Dr. N. Kalaiselvi at India habitat Centre, New Delhi.

Dr. Jitendra Singh also unveiled the OWOT logo along with launch of CSIR products, signing of MoUs and 12 Thematic Technology Transfers. OWOT is an initiative aimed at showcasing the wideranging thematic research and innovations across its numerous laboratories. This program serves as a platform to highlight CSIR's diverse contributions to scientific and industrial advancements in India and to engage with various societal sectors.

The event series is structured around specific themes, with each week dedicated to a different area of focus. The One Week One Theme (OWOT) Campaign has been initiated on 24 June and it will culminate on 17 December 2024. And during this six months' time, total eight broad themes will be covered by concerned laboratories of CSIR.

The theme Energy and Energy Devices (EED) was identified as the first theme. Inaugural of this theme centric OWOT program organized on June 24, 2024 at CSIR-National Chemical Laboratory,

As part of the EED theme, CSIR's National Institute of Science Communication and Policy Research (CSIR-NIScPR) collaborates with the CSIR-National Chemical Laboratory (CSIR-NCL) to organize an event titled "TRL Assessment and Patent Landscaping of Energy Technologies: Pathways for Commercialization" on 25 June 2024 at CSIR-NCL, Dr. Homi Bhabha Road, Pune.

Dr. Ashish Lele, Director of CSIR-NCL, Pune, speaking on the occasion delved into the critical aspects of Technology Readiness Level (TRL) Assessment and Patent Landscaping for Energy Technologies, emphasizing their significance in commercialization pathways.

The Chief Guest, Dr. Prof. G.D. Yadav, Former Vice Chancellor of ICT Mumbai, lauded CSIR-NIScPR's commendable work in TRL Assessment and Patent Landscaping. He highlighted the institute's pivotal role in shaping the future of energy technologies.

The event featured two engaging technical sessions, the first session, focused on Technology Readiness Level Assessment, was chaired by Prof. Satishchandra Ogale, Director of the Research Institute for Sustainable Energy at TCG-CREST, Kolkata

The second session, centred on Technology Mapping of Energy Technologies, was led by Prof. Siddharth Jabade, Vice Chancellor of Vishwakarma University.

A Panel Discussion on 'Energy Devices: Pathways for Commercialisation' was organised under chairmanship of Dr. Reji Mathai, Director, Automotive Research Association of India. Around 150

students from various universities, faculty, students, research institutes, start-ups, and industry participated in the event.

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