CSIR IN WEDLA



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1st Made-in-India Hydrogen Fuel Cell Bus Unveiled in Pune

CSIR-NCL

23rd August, 2022





Union Minister of State for Science and Technology Dr Jitendra Singh launched India's first truly advanced hydrogen fuel cell bus.

Developed by KPIT-CSIR in Pune, the fuel cell bus uses hydrogen and air to generate electricity, and the only effluent from the bus is water.

For comparison, a diesel bus plying long-distance routes typically emits 100 tonnes of CO2 per year, and India has over a million such buses.

Additionally, the high efficiency of fuel cell vehicles and the high energy density of hydrogen ensure that fuel cell trucks and buses have lower operating costs per kilometre than diesel-powered vehicles.

"Green hydrogen is an excellent clean energy vector that enables deep decarbonisation of difficult-to-abate emissions from the refining industry, fertiliser industry, steel industry, cement industry and also from the heavy commercial transportation sector," the union



minister said. "India can pole-vault from being net importer of fossil energy to becoming net exporter of clean hydrogen energy," he added.

Dr Jitendra Singh points out that around 12-14% of CO2 and particulate emissions come from diesel-powered heavy-duty vehicles, which are decentralized emissions and therefore difficult to capture.

The minister said hydrogen is a great way to eliminate road emissions from the vehicle sector. He said India is also aiming to increase inland waterways for goods and passenger transport.

The Minister appreciated the joint development efforts of KPIT and CSIR-NCL and said that the technical skills of Indian scientists and engineers are the best in the world and not less at very low cost

Published in:

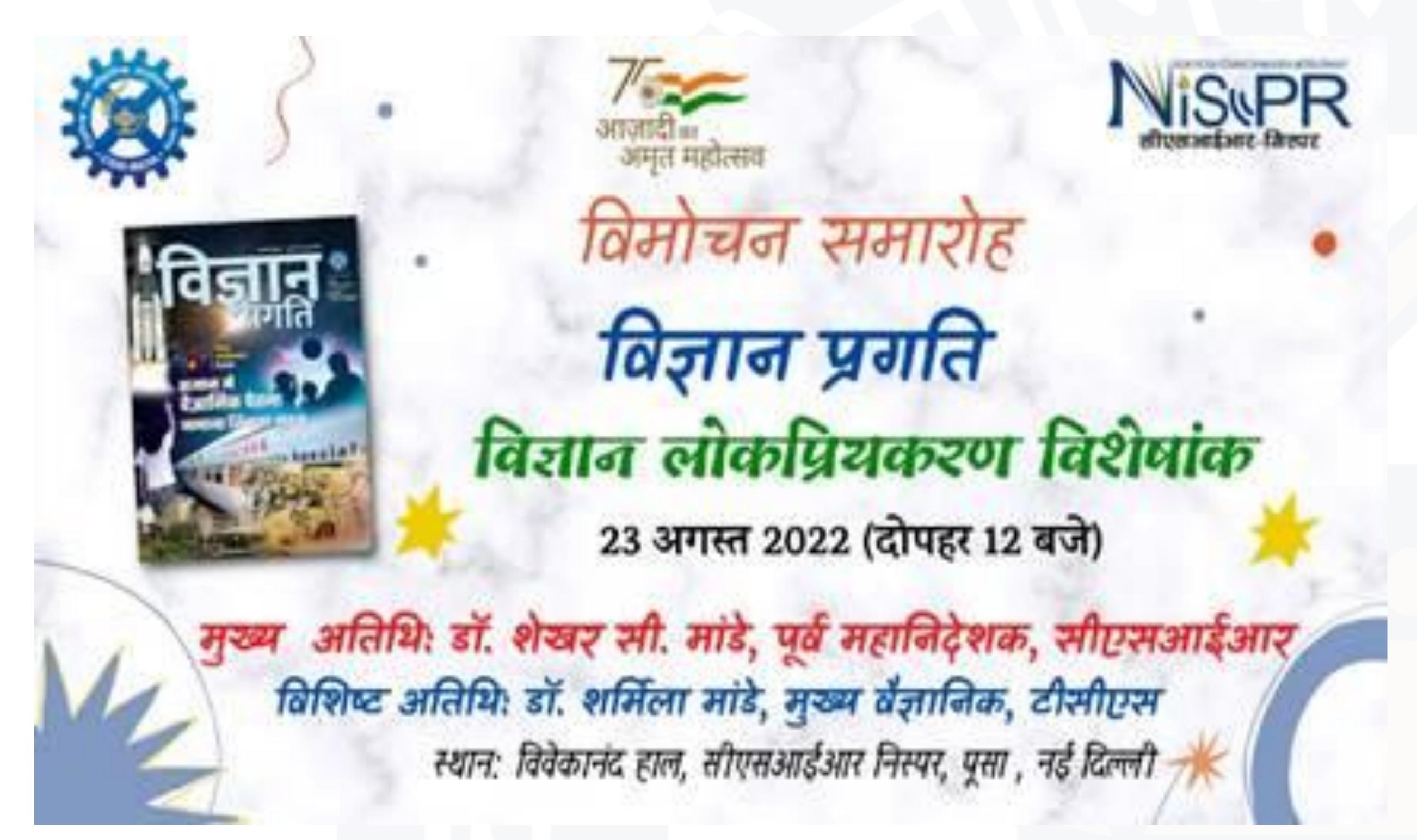
Tatsatchronicle



The special issue of NIScPR's magazine contains Indian organizations engaged in science popularization

CSIR-NIScPR

23rd August, 2022





CSIR-National Institute of Science Communication and Policy Research (CSIR-NIScPR), New Delhi organized the release function of the Special issue of its Popular Science Hindi magazine "Vigyan Pragati" on 23 august 2022. In the year 2022, this popular magazine of NIScPR has completed the glorious 70 years of spreading science among the public. The very first issue of this magazine was published in August, 1952. This special issue (August 2022) of 'Vigyan Pragati' contains India's leading organisations engaged in science popularization. Both government and voluntary organisations have been covered in this special issue. This programme is the part of Azadi Ka Amrit Mahotsav.

The event started with lighting the lamps as a gesture of demolition of the darkness of misinformation with the light of scientific knowledge. Prof. Ranjana Aggarwal, Director, CSIR-NIScPR warmly welcomed the Chief guest Dr. shekhar C. Mande and the Guest of Honor Dr. Sharmila Mande. In her address, she described the rich legacy of the science magazine 'Vigyan Pragati' and CSIR-NIScPR's contributions towards science popularisation. She added that science is not a sole part of western culture. India has been practicing science since ancient times and has a rich scientific legacy and traditional knowledge of our nation.



She also mentioned Acharya P.C. Ray, for playing an important role in science popularisation in the nineteenth century.

Guest of Honour Dr. Sharmila Mande, Chief Scientist, TCS Research & Innovation, highlighted the role of science communication in regional languages. She added that in this way, innovations in the field of Science and Technology can reach out to larger population of the society. Chief Guest Dr. Shekhar C. Mande, former Secretary, DSIR & former Director General of CSIR emphasized the role of science and scientific temper in the progress of the nation. He was concerned about the general perception of people towards science, despite having a rich scientific history. He mentioned that there still is a gap between the scientific community and society. He said that science is not finished until it's communicated. Further, he stressed on historical achievements of CSIR institutions for the betterment of society. He said always there have been tough times for science whether it was the colonial period or the challenging time of COVID pandemic or any natural disaster, CSIR never stepped back from its responsibility. One may not know about the contributions of CSIR but unknowingly CSIR is part of everyone's daily life. Dr. Shekhar recalled the contribution of 'Vigyan Pragati' in the last 70 years and told this magazine and its popular science content should reach aggressively to the common people. It will decide the fate of the nation in the upcoming 25 years when India will be completing 100 years of Independence.

At the end of the programme, Dr. Manish Mohan Gore, Scientist, CSIR-NIScPR and the Editor, Vigyan Pragati proposed vote of thanks. He presented the brief description of the special issue of the magazine. The special issue (August 2022) of the magazine includes public-funded institutions as well voluntary organizations working for science popularization across the country. He said some of the organizations felt the importance of science popularisation even before independence and started working on taking science to the common people. He assured that 'Vigyan Pragati' will work toward penetrating deep into the society so that science can be reached a larger audience of the country.

Published in:



Number of women scientists up; CSIR head aims at further push

CSIR-CDRI

22nd August, 2022

The appointment earlier this month of Dr N Kalaiselvi as the first woman director general of India's largest research and development organisation, the 80-year-old Council of Scientific and Industrial Research (CSIR), underlined a significant trend — official data show the participation of women in science research has been generally increasing over the past two decades in the country.



More than a quarter — 28% — of participants in extramural R&D projects in 2018-19 were women, up from 13% in 2000-01 due to various initiatives taken by successive governments, data compiled by the Department of Science and Technology show. The number of women principal investigators in R&D had risen more than four times from 232 in 2000-01 to 941 in 2016-17.

The percentage of women among researchers went from 13.9% in 2015 to 18.7% in 2018, the data show. There were fewer women researchers in engineering and technology (14.5%) compared with the natural sciences and agriculture (22.5% each), and health sciences (24.5%). The percentage of women researchers in the social sciences and humanities is, however, much higher at 36.4%.

"The increase in women's participation, especially in research, is due to a combination of government programmes and natural progression. Personally, I have never faced hiccups in my career. But I have seen that women tend to drop out when they get married or have children," Dr Kalaiselvi told The Indian Express.



However, "this was more in previous decades, as the infrastructure to do both (pursue research and family obligations simultaneously) simply did not exist", she added. "This is no longer the case. In numerous CSIR labs, women's participation has increased because there are creche facilities now in the residential colonies where the women scientists live. Parental attitudes towards girls pursuing science has also seen a shift, and girls are now encouraged more."

EXPLAINED

A skew; some way to go still

While the overall data show an upward trend, women researchers in engineering and technology are fewer than in natural sciences, health and agriculture. At the post-doctoral level, there are fewer women researchers than the global average..

Dr Kalaiselvi said that as the head of CSIR's network of 38 laboratories and 4,500 scientists, her aim would be to push for a further increase in the participation of women within the organisation.

SCIE	NTISTS			
	researchers &faculty	*2020 data ap	proximate, still l	being analyse Source: DS
Year	Undergrad	PG	MPhil	PhD
Year 2011-12	Undergrad 13.2%	PG 9.62%	MPhil 17.58%	PhD 22.9%
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2011-12	13.2%	9.62%	17.58%	22.9%
2011-12	13.2%	9.62%	17.58% 28.39%	22.9%



Dr S Chandrasekhar, secretary of the Department of Science and Technology (DST), said: "With the increasing use of AI in the sciences, we anticipate that in the next 5-6 years, there will be an exponential growth in women's participation in S&T — with women using more sophisticated tools that allow remote working, such as something simple like access to online libraries. Even chemical sciences and the industry is getting smarter and cleaner, and I think the number of women employed will now increase."

Results of the All India Survey on Higher Education (AISHE) 2019 showed a 53% and 55% participation of women in science education at the Bachelor's and Master's levels respectively, numbers that are comparable with many developed countries. But at doctoral level, women graduates (44%) lagged behind men (56%).

"We have observed that participation (of women) is healthy till the postgraduate level. But there is a drop at the post-doctoral level, where most of the research takes place. Even though this too has increased, it is still far less than the 30% global average," Dr Akhilesh Gupta, senior adviser at the DST, and head of the team that drafted the Science, Technology and Innovation (STI) Policy, said.

The ministry aims to raise women's participation in S&T to 30% by 2030, Dr Gupta said. "We are already making a push for it...out of the 97 scientists in DST, 35 are women. In the past two years, the majority of the programme committees in the DST have had at least 20-25% women. But the big achievement is that 11 out of 18 divisions in the DST are now headed by women — that is 61%, probably the largest percentage of women in leadership in any government department," Dr Gupta said.

He said that the number of science researchers in India has doubled from 30,000 in 2014 to over 60,000 now. Last year, the DST-supported Gender Advancement for Transforming Institutions (GATI) project, based on the UK's Athena Swan Charter, was introduced. In the first phase of GATI, 30 educational and research institutes have been selected by DST, with a focus on women's participation in leadership roles, faculty, and the numbers of women



students and researchers. "In the first phase, which is now complete, we have selected a mix of institutes under S&T including institutes of national importance like IISc, the five IITs, BITS Pilani, research institutes like ICAR, and universities like Delhi University," Dr Nisha Mendiratta, who heads the GATI project, said. DST will study the participation of women in these institutes over the next few months, she said.

According to preliminary findings, the rate of women's participation is particularly low across the five IITs in

Delhi, Mumbai, Kanpur, Chennai, and Roorkee — ranging from 9% to 14%.

Women's participation is the highest in biotechnology (40%) and medicine (35%). Dr Mendiratta said ICAR has 29%

women's participation, CDRI has 18%, NIPER Hyderabad 21%, and the Defence Bio-Engineering and Electro-Medical Lab (DEBEL) in Bangalore has 33%. Delhi University has 33% women's participation, while Tezpur University in Assam has 17%.

Published in: Indianexpress



Like weather, release pollution reports too: Karnataka Pollution Control Board

CSIR-NEERI

25th August, 2022

BENGALURU: Member Secretary, Karnataka State Pollution Control Board (KSPCB), Srinivasulu on Wednesday said that along with weather reports, pollution updates with various parameters too should be released. This will help citizens convert the information into action and instead of engineering-focused solutions alone, people also can find solutions from an ecological perspective, he said.

Speaking at the India Clean Air Summit-2022, organised by the Centre for Air Pollution Studies (CAPS) at the Centre for Study of Science, Technology and Policy (CSTEP), Srinivasulu said the current situation of pollution and climate change is purely due to ignorance. "Changing our behaviour and perception can lead to an overall change in how we perceive and act in a situation. Acting to protect ourselves from air pollution and climate change need to be localised," he said.

Dr Pratima Singh, Head of CAPS, said looking at air pollution using a climate lens can help find a way to a secure and sustainable environment. "Working in silos is no longer an option if we want implementable solutions. By bringing together different communities, the gaps in knowledge can be bridged and solutions that work can be found," she said. At the day-long conference, experts examined how India's energy transition to renewable energy would impact the dual crises of air pollution and climate change and what measures would help this transition. KV George, Senior Principal Scientist and Head, Air Pollution Control Division, CSIR- NEERI said, "When a technology is implemented, behavioural change is needed. Studies should be undertaken to ensure that the measures are locally relevant and usable by the people. We cannot impose our solutions on people. The ground level analysis is a must."

Published in:

New Indian Express



Jamshedpur: VB Chinmaya Vidyalaya wins SN Sinha Memorial Materials and Metallurgy Quiz, Loyola School bags second spot

CSIR-NML 24th August, 2022

Jamshedpur, Aug 24: The Indian Institute of Metals (IIM), Jamshedpur Chapter, organized the 10th Professor SN Sinha Memorial Materials and Metallurgy Quiz 2022 (SNSM3E-2022) for standard XI and XII students of Jamshedpur at CSIR-National Metallurgical Laboratory, Jamshedpur.



In addition to 16 participating schools with 31 team comprising of 62 students, 20 teachers, dignitaries from Tata Steel and CSIR- NML attended the function. After a series of exciting rounds, Vidya Bharati Chinmaya comprising Om Bhardwaj and A Ananthakrishnan were declared champions of the quiz. Sarothak Ghosh and Madhan Varshney from Loyola School bagged the second prize while Amisha Sinha and Ishani Dasgupta also from Loyola School were adjudged third.

The two winning team will get opportunities to participate in Professor Brahm Prakash Memorial Materials Quiz 2022 to be held at Kalpakkam on September 9-10, 2022. Earlier, Chief Guest, Prof Ashok Kumar, Head, Metallurgy & Materials Engineering, National Institute of Technology (NIT) Jamshedpur formally inaugurated the programme. The event is dedicated to late Prof SN Sinha, an eminent educationist and past president of the IIM Jamshedpur Chapter.

On the occasion floral tributes were paid to Prof. Sinha by Prof. Ashok Kumar, Head, Metallurgy & Materials Engineering, NIT Jamshedpur, Dr. Indranil Chattoraj, Director, CSIR-NML, Prof. Gayatri Sinha, wife of late Prof SN Sinha,



Dr AN Bhagat, Chairman, IIM Jamshedpur and Dr. Chiradeep Ghosh, Secretary, IIM, Jamshedpur Chapter. Dr AN Bhagat, Chairman, IIM Jamshedpur chapter was also present.

Guest of Honour, Gayatri Sinha motivated the students and thanked the organizers for conducting the programme for last 10 years.

On the occasion, Prof. Ashok Kumar delivered lecture on "Introduction to Materials for Students" which was well appreciated by the audience.

Prof. Kumar also talked about the present and advanced materials for use and how the advance materials can be selected. Finally how the interest in new materials can be developed in school students.

Participating Schools

JH Tarapore School, Dhatkidih; Atomic Energy Central School, Jadugoda; DBMS English School; Baldwin Farm Area High School; Narbheram Hansraj English School; NML Kerala Public School; Mount Litera Zee School Jamshedpur; Little Flower School; Loyola School; Kerala Public School Kadma; Vig English School; Rajendra Vidyalaya; SDSM School for Excellence; Vidya Bharati Chinmaya Vidyalaya, Telco.

Published in:



Over 100 farmers participated in CSIR-IIIM sponsored workshop in J-K's Bhaderwa

CSIR-IIIM

23rd August, 2022

Bhaderwah (J-K), Aug 23 (PTI) Over 100 farmers associated with cultivation of commercial flowers on Tuesday participated in a workshop organised by Council of Scientific and Industrial Research (CSIR) and Indian Institute of Integrative Medicine (IIIM) here in Doda district of Jammu and Kashmir, officials said.

The interactive workshop on 'challenges, interventions and opportunities' for the farmers under CSIR Floriculture Mission was primarily aimed at informing the farmers about the capacity building, value addition and post-harvest management of high-value floricultural crops, they said.

"Bhaderwah has immense potential in floriculture, especially cut flowers and aromatic plants and owing to the high demand of cut and loose flowers, the mission with its various strategically devised verticals offers a unique opportunity in enhancing the economy of the Union Territory, especially areas like Bhaderwah," nodal scientist of CSIR floriculture mission Shahid Rasool said.

He said the verticals of the mission include the development of new floral varieties, expansion of areas under region-specific floricultural crops, integration of apiculture and floriculture and establishing effective domestic and international market linkage.

Lauding the CSIR-IIIM for organising the workshop, Deputy Commissioner, Doda, Vishesh Paul Mahajan sought the cooperation of the farmers to make Bhaderwah a shining success story in the field of floriculture.

"We have already proved ourselves by successfully cultivating aromatic plants and this Valley in a short span of time has emerged as the capital of lavender in the country," he said.



"I hope CSIR will continue to motivate and impart training to the farmers in length and breadth of the district so that we can encourage farmers to shift from their normal cropping patterns and increase their income in a big way."

Participating farmers expressed their gratitude to CSIR-IIIM for organising the workshop and said such an initiative will surely help open new avenues for them to increase their income by adopting value addition to their crops.

In Bhaderwah alone, over 1,000 farmers have been growing marigold by shifting from traditional maize cultivation and thereby meeting the demand of the flowers in temples of Jammu, Mata Vaishno Devi shrine in Reasi and the neighboring Punjab during summer months (May to September) when supply of Marigold dries up from the plains of Jammu and Punjab due to harsh weather. PTI COR/TAS AQS

Published in:

The Week



Hyderabad: IICT conducts one-day training programme on AAC technology

CSIR-IICT 23rd August, 2022

Hyderabad: Hyderabad-based Indian Institute of Chemical Technology (IICT) on Tuesday conducted one-day training programme on 'Accelerated Anaerobic Composting Technology (AACT): Concept to Commissioning and Marketing".

The training program, which included instructor-led-training and field visit for technology demonstration, was to train and encourage entrepreneurs to take up AAC technology for implementation. More than 35 entrepreneurs who participated in the one-day training programme were also given participation certificates.

It may be recalled that the IICT, in its attempts to convert waste to wealth, had developed the AAC technology that essentially involves conversion of organic waste to nutrient rich soil conditioner.

Recently, the Agriculture Marketing (DAM) wing of the State government has sponsored a project of Hyderabad-based Indian Institute of Chemical Technology (IICT) for installation of 46 AAC units of capacity 250 kilograms per day in Telangana.

Khar Energy Optimizers from Hyderabad has been chosen as the project executing company, a press release said. "Within 28 days the nutrient rich soil conditioner is ready through AAC technology. A 250 kg AAC unit results in the generation of approximately 100 kg of soil conditioner per day," the IICT scientists said.

Published in:

Telangana Today



What is Purple Revolution?

CSIR-IIIM, CIMAP

23rd August, 2022

Recently, as part of the Purple Revolution, the Council of Scientific and Industrial Research (CSIR)-Aroma IIIM's Initiative will begin lavender cultivation in the Ramban district of Jammu and Kashmir. CSIR is a modern Spille research and development organization under REVOLUTIONS the Ministry of Science and Technology. The Union Ministry of Science and Technology initiated the Purple Revolution or Lavender





Revolution in 2016 through the Aroma Mission of the CSIR. Lavender farming is done in nearly all of Jammu and Kashmir's 20 districts. First-time producers were offered free lavender seedlings as part of the goal, and those who had previously produced lavender were paid Rs. 5-6 per plant.

The goal of the Purple Revolution

• The goal is to promote the indigenous aromatic crop-based agro-economy by shifting from foreign aromatics to homegrown kinds.

Commodity involved in the revolution

- Lavender oil is the primary commodity, which costs a minimum of Rs. 10,000 per litre.
- Incense sticks are made from lavender solutions extracted from lavender oil.
- The hydrosol produced following flower distillation is used to manufacture soaps and room fresheners.

Relevance of the Mission

• It is significant since it aligns with the government's objective of doubling agricultural



- earnings by 2022.
- It would provide a livelihood for aspiring farmers and agri-entrepreneurs, as well as
- strengthen the Start-Up India programme and encourage an entrepreneurial spirit in the region.
- Over 500 young people benefited from the purple revolution, which eventually led to the doubling of their income.

What is Aroma Mission?

- The Aroma Mission aims to bring about a revolutionary change in the scent sector by targeted interventions in agriculture, refining, and product development, hence fueling the expansion of the aroma sector and rural employment.
- The mission will strengthen the development of aromatic crops to produce essential oils in high demand in the scent sector.
- It is anticipated that it would allow Indian farmers and the aroma business to become significant players in the manufacturing and exporting other essential oils in the menthol mint pattern.
- It attempts to bring significant benefits to farmers by increasing income, using waste areas and protecting their harvests from uncontrolled grazing animals.

Aroma Mission Phases I and Phase II:

- During Phase I, the CSIR assisted in the cultivation of 6000 hectares of land in 46 Aspirational regions across the nation. In addition, almost 44,000 employees were taught, provided with skills, and required training.
- On February 9, 2021, the CSIR inaugurated Phase II of the Aroma Mission, which is expected to employ over 45,000 trained people resources and aid over 75,000 agricultural households across the country.

Nodal Organizations backing this mission

• The nodal facility is the CSIR-Central Institute of Medicinal and Aromatic Plants (CSIR-CIMAP), located in Lucknow.



Targeted Results

- It will bring about 5500 hectares of extra land into captive production of aromatic cash crops, focusing on rain-fed/degraded land across the country.
- Provide technical and infrastructure support to farmers/growers around the nation for distillation and value addition.
- Enabling effective buy-back procedures to ensure farmers/growers receive fair pricing.
- Value enhancement to essential oils and fragrance components in preparation for their inclusion in international trade and commerce.



CSIR-NCL, CECRI

22nd August, 2022

{ DEVELOPED BY CSIR, KPIT } FIRST IN INDIA

Jitendra Singh unveils indigenously developed hydrogen fuel cell bus

HT Correspondent

puneletters@htlive.com

PUNE: Union minister of state for science and technology Dr Jitendra Singh on Sunday officially unveiled India's first indigenously developed hydrogen fuel cell bus in Pune.

The hydrogen fuel cell technology has been developed by KPIT in collaboration with the Council of Scientific and Industrial Research - National Chemical Laboratory (CSIR-NCL) and Electrochemical Central Research Institute (CSIR-CECRI).

Singh said, "Green hydrogen is an excellent clean energy vector that enables deep decarbonisation of difficult-to-abate emissions from the refining, fertiliser, steel, cement industries and also from the heavy commercial transportation sector."

The fuel cell utilises hydrogen and air to generate electricity to power the bus and the only effluent from the bus is water, therefore making it possibly the most environmentally friendly mode of transportation.



Union minister Dr Jitendra Singh (centre) on Sunday officially unveiled India's first indigenously developed hydrogen fuel cell bus in Pune

"The high efficiency of fuel cell vehicles and the high energy density of hydrogen ensures that the operational costs in rupees per kilometre for fuel cell trucks and buses are lower than dieselpowered vehicles and this can bring freight revolution in India. Moreover, fuel cell vehicles also

give zero greenhouse gas emissions," said Singh.

The Minister lauded the joint development efforts of KPIT and CSIR-NCL and pointed out that the technology prowess of Indian scientists and engineers is no less than the best in the world and also at much lower

Dr Singh pointed out that about 12-14% of carbon dioxide emissions and particulate emissions come from diesel-powered heavy commercial vehicles and these are decentralised emissions and hence difficult to cap-



Green hydrogen is a clean energy vector that enables deep decarbonisation of difficult-to-abate emissions from the refining, fertiliser, steel, cement industries and also from the heavy commercial transportation sector.

DR JITENDRA SINGH, Union minister for science and technology

He said, "Hydrogen fuelled vehicles provide an excellent means to eliminate the on-road emissions from this sector."

At CSIR-NCL, Singh inaugurated the Bisphenol-A pilot plant where he said these pilot plants have successfully demonstrated novel process technologies developed by NCL under CSIR's Covid-19 mission program and Bulk Chemicals mission program.

Bisphenol-A (BPA) is a feedstock for the production of epoxy resins, polycarbonate and other engineering plastics. He said,

nol-A is projected to reach 7.1 million tonnes by 2027, growing at a CAGR of 2% over the analysis period 2020-2027.

The entire estimated annual demand of 1, 35,000 tonnes in India is imported today. The Minister hoped that CSIR-NCL's technology will enable import substitution of this important raw material and help in India's Atmanirbhar Bharat initiative."

The uniqueness of the process developed by CSIR-NCL is a novel downstream process technology, which makes this indigenous technology competitive The global market for Bisphe- with global benchmarks.

Published in:



CSIR-IIP

22nd August, 2022

25 अधिकारियों और वैज्ञानिकों को उत्तराखंड रत्नश्री सम्मान

माई सिटी रिपोर्टर

देहराद्न। इंटरनेशनल गुडविल सोसाइटी ने राज्य के विकास में योगदान देने वाले अधिकारियों, शिक्षाविदों एवं वैज्ञानिकों को निदेशक प्रो. अनीता रावत, उच्च शिक्षा उत्तराखंड रत्नश्री सम्मान से नवाजा। निदेशक प्रो. संदीप शर्मा, यूटीयू कुलसचिव कार्यक्रम में उत्तराखंड चैप्टर के अध्यक्ष आरपी गुप्ता, प्रो. अमित गुप्ता, डॉ. वरिष्ठ आईएएस अधिकारी डॉ. आर मीनाक्षी नृपेंद्र चौहान, यूजीवीएनएल के प्रबंध

आईआईपी निदेशक डॉ. अंजन रे, वाडिया किया। इंस्टीट्यूट के निदेशक डॉ. कालाचॉद साईं, कार्यक्रम में सोसाइटी के राष्ट्रीय अध्यक्ष आईएएस अधिकारियों डॉ. पंकज पांडेय, पूर्व वरिष्ठ आईएएस अधिकारी डॉ. योगेंद्र चंद्रेश यादव, डॉ. आर. राजेश कुमार, सी नारायण, राष्ट्रीय सचिव पूर्व वरिष्ठ रविशंकर, नितिका खंडेलवाल, यूकॉस्ट के आईएएस अधिकारी डॉ. आरके भटनागर ने महानिदेशक प्रो. दुर्गेश पंत, यूसैक की वर्चुअल माध्यम से शिरकत की।

इंटरनेशनल गुडविल सोसाइटी ने राज्य के विकास में योगदान देने वालों को किया सम्मानित

संदरम बतौर मुख्य अतिथि मौजूद रहे। निदेशक संदीप सिंघल व यूपीसीएल प्रबंध कार्यक्रम में ओएनजीसी की अध्यक्ष व निदेशक अनिल यादव, सोसाइटी के पीईसी प्रबंध निदेशक डॉ. अलका मित्तल, पंतनगर सदस्य व उत्तराखंड के पूर्व मुख्य सचिव विवि के पूर्व कुलपति प्रो. जे. कुमार, सुभाष कुमार व एन. रविशंकर को सम्मानित

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