# CSIR IN INEDIA



# NEWS BULLETIN 16 TO 20 JUNE 2023









# Director general of CSIR admires CFTRI's successes, talks about developing novel technology

CSIR-CFTRI

20<sup>th</sup> June, 2023

While wholeheartedly applauding the Mysurubased Central Food Technological Research Institute (CFTRI) for being an important lab of the Council of Scientific and Industrial Research (CSIR) and developing remarkable food technologies since its inception, Dr. N. Kalaiselvi, director general of CSIR, and secretary, DSIR, Government of India on Tuesday, June 20, told scientists at the CFTRI to continue making value additions to the food



technologies, understanding the taste of the people like it has been doing all these years.

Technologies are short-lived and they keep changing. With value additions, newer and novel technologies and recipes can be developed. Here, understanding the taste of the people plays an important role. The CFTRI is giving the future to food and this is the place where the future of food is decided, Dr. Kalaiselvi, who is the first woman DG of CSIR, said in her address.

Speaking after inaugurating the curtain raiser event of 'One Week One Lab' (OWOL) initiative of CSIR, she said CFTRI has developed over 700 technologies all these years and they can be found everywhere.

"The CFTRI director told me that the institute has transferred several technologies. I was told that the idli and dosa batter technology was also developed here. Strangely, nobody is acknowledging them and giving royalty to the institute. Nevertheless, it's fine since the people appreciate the institute the moment they eat the food prepared from its technologies. That



appreciation is enough for the institute's hard work," she observed. Dr. Kalaiselvi said students pursuing research at the institute in Mysuru are the privileged one going by the kind of infrastructure and facilities that the institute offers to them.

"I must say it's an eye opening experience for those who have no interest in pursuing research. I think the students pursue research here with a lot of happiness. The students can eat while doing research since it is part of their studies and none can take exception if they munch snacks all day as they can tell that they were tasting the product developed by them, At CFTRI, I believe the involvement for research is 100 percent," she felt.

On the "One Week One Lab" initiative, she said it has been prepared in such a manner that research achievements of the CFTRI can be highlighted in an effective manner. Stating that the CFTRI's contribution to the country's food security is incredible, the CSIR DG told the scientists and researchers that the importance and recognition brings new responsibilities not just to you but also to me too.

Referring to the generosity of the Mysuru Maharajas, she said the place where the CFTRI is housed is a palace built by the Maharajas. The land where the sprawling institute is located is donated by the kings. It is an inspiring place to work for the development of science and food technology.

### CSIR-CFTRI Director Sridevi Annapurna Singh presided.

The OWOL aims to engage the public by showcasing the CSIR's technologies and inspiring young innovators, students, startups, academia and industry professionals to explore the opportunities through tech ventures. It also aims to promote and exhibit the lab's advanced research, cutting-edge technologies, expertise, and state of the art facilities in the field of food science and technology to various stakeholders. Yaduveer Krishnadatta Chamaraja Wadiyar, scion of the erstwhile Mysuru royal family will inaugurate the five-day OWOL at the CFTRI campus on July 3 at 9:30 a.m.

### Published in:

The Hindu



#### CSIR-IMTECH

20<sup>th</sup> June, 2023

# Cell bank established at Imtech, to develop biopharma drugs

TNN/ Jun 20, 2023, 08:27 IST



Chandigarh: Chandigarh administrator Banwarilal Purohit on Monday inaugurated the 'One Week, One Lab' program and a good manufacturing practice (GMP) facility, National Repository of Microbial Cell Banks for Biopharmaceutical Products, at the Institute of Microbial Technology (Imtech) on Monday.

The one-of-its-kind facility with GMP infrastructure will serve the national mandate for development of affordable biological drugs like biotherapeutics and vaccines against communicable and non-communicable diseases. The facility will cater to the entire nation with high quality microbial cell banks and expression systems for development of biopharmaceuticals, used for treatment and prevention of cancer, autoimmune disorders, heart related diseases and microbial infections. The aim of OWOL, meanwhile, is to showcase research and technology prowess of IMTEC. Speakers from academia and pharma corporates would be part of OWOL

### Published in:

The Times Of India



### CSIR-4PI to organise 'One Week One Lab' campaign from July 10

CSIR-4PI

19<sup>th</sup> June, 2023

The Council of Scientific and Industrial Research Fourth Paradigm Institute (CSIR-4PI) is organising a One Week One Lab campaign from July 10 to 15.

The One Week One Lab is a countrywide initiative of CSIR following the suggestion of Union Minister for Science and Technology Dr. Jitendra Singh, to showcase the technological breakthroughs and scientific innovations of CSIR.

The curtain raiser of CSIR-4PI's One Week One Lab campaign is slated for June 21 with the inauguration of a centralised CSIR SuperComputing facility by Dr. N. Kalaiselvi, Director General CSIR. This facility will cater to the traditional as well as AI computing computational needs of CSIR laboratories with an enhanced total peak performance of 4.2 Peta-flops.

The Bengaluru-based CSIR-4PI, according to its head Dr. Sridevi Jade is a young and vibrant organisation committed to promoting data-driven translational research in CSIR labs with the aim to be the one-stop destination for all Data Science, AI, ML, DL, and Cyber Infrastructure needs of CSIR.

The One Week One Lab campaign of CSIR-4PI will showcase the lab with events such as Scientist-student connect, interaction with college youth, stakeholders connect, academia-industry panel discussion, science outreach-roadshow, and open day for farmers. The campaign will culminate with the foundation day celebrations of CSIR-4PI on July 15.

### Published in:

The Hindu



## CSIR and Institut Pasteur collaborates for international health research

CSIR-CCMB

19<sup>th</sup> June, 2023

Scientists from the Council of Scientific and Industrial Research (CSIR), India, and the Institut Pasteur joined forces for a three-day workshop held from June 14 to 16 at the CSIR-Centre for Cellular and Molecular Biology (CCMB) in Hyderabad.

The workshop aimed to foster collaborations and establish joint research programs in health research between the two prominent scientific organizations from India and France.

This event marked the second workshop following the initial one held in 2020 and served as a follow-up to the Memorandum of Understanding signed between CSIR and Institut Pasteur in early 2022, a release said here on Monday.

Dr N Kalaiselvi, Director-General of CSIR, stated, "CSIR and the Institut Pasteur are renowned for their expertise in life science research, particularly in human diseases. Our objective is to synergize the capabilities of these two organizations to develop global healthcare solutions and innovations to combat human diseases."

Throughout the workshop, scientists delved into three key areas of research: antimicrobial resistance, emerging and re-emerging diseases and preparedness, and human genetics and genomics of inherited disorders. The discussions aimed to identify shared interests that could be transformed into collaborative projects.

Dr Vinay Nandicoori, Director of CSIR-CCMB, expressed his satisfaction with hosting the second CSIR-Institut Pasteur Workshop at CCMB, highlighting the shared research interests between the two organizations. He also expressed the hope for establishing a CSIR-Pasteur Centre of Excellence at CCMB, Hyderabad, in the future.



Prof Christophe d'Enfert, Senior Executive Scientific Vice-President of Institut Pasteur, emphasized the significance of the event, calling it a major milestone in their scientific cooperation with CSIR.

He expressed the desire to further strengthen the alliance through joint research projects, academic exchanges, and the potential establishment of a joint research centre.

Thierry Berthelot, Consul General of France in Bangalore, underscored the importance of combating the public health crisis through research collaboration and expertise sharing.

He encouraged CSIR and Institut Pasteur to capitalize on this opportunity, laying the groundwork for long-term collaboration and the potential establishment of a joint centre for healthcare research.

## Published in: Uniindia



## MOU Signing With AM/NS India Odisha Assest & CSIR-IMMT, Bhubaneswar

CSIR-IMMT

18<sup>th</sup> June, 2023

Bhubaneswar: On 15th June 2023, a MOU is signed between Arcelormittal Nippon Steel INDIA, Odisha Assets & CSIR-Institute of Minerals & Materials Technology, Bhubaneswar by Mr G Suresha, Executive Director AM/NS INDIA, Odisha and Dr Ashok Sahu, Chief Scientist & Head, Mineral Processing and Business Development, CSIR-IMMT to promote R&D co-operation in the



area of processing of low grade iron ores, iron ore pellets, slurry pipeline transport, automisation in processes etc and other areas of mutual interest in presence of Dr Ramanuj Narayan, Director CSIR-IMMT, Dr Viswajanani, Scientist H, and Head TKDL CSIR, New Delhi scientists & officials of CSIR-IMMT and AM/NS Paradeep Unit.. CSIR-IMMT is the national R&D institute which is working on recovering values from low & lean grade beneficiation of iron ores, pelletisation processes, use of AI/ML, automation in pellet plant process, valorization of metallurgical plant waste, slurry pipe line design and other decarbonization processes for iron & steel industries and AM/NS India has the pellet production facility of 12 MTPA located at Paradeep, the port city of Odisha, Iron ore Beneficiation plant of 16 MTPA capacity at Dabuna in Keonjhar district with 253 KM long slurry pipeline connected to Paradeep pellet plant. Odisha operation is backed by two high quality iron ore mines- Thakurani and Ghoraburhani-Sagasahi mines with mining permission for 12 MTPA. The program was coordinated by Mr. Sachida Nanda Sahu, Principal Scientist, MPD, CSIR-IMMT and Mrs. Soumya Sahoo, Deputy Manager, R&D, AM/NS India

### Published in:

Orissadiary



# Stakeholders meet on rubber and allied products to be held in Kerala on June 19

#### CSIR-NIIST

17<sup>th</sup> June, 2023

A stakeholders meet on Rubber and allied products is being organised by the CSIR-National Institute for Interdisciplinary Science and Technology (NIIST) on June 19.

The event is being organised primarily to analyse the gaps in research and development for immediate intervention, NIIST said.



K. M. Varghese, General Manager, MRF Ltd, and Jiby Isaac, Head, R&D, Apollo Tyres Ltd, will speak on the challenges and technological aspects related to tyres. NIIST Director C.Anandharamakrishnan will preside over the meeting.

The NIIST director observed that it is imperative to intensify the development of sustainable technologies for the rubber sector.

In March this year, the NIIST, a constituent lab of the Council of Scientific and Industrial Research (CSIR), had announced plans to direct its efforts toward promoting rubber cultivation as part of a broader strategy to cut down India's dependence on imports.

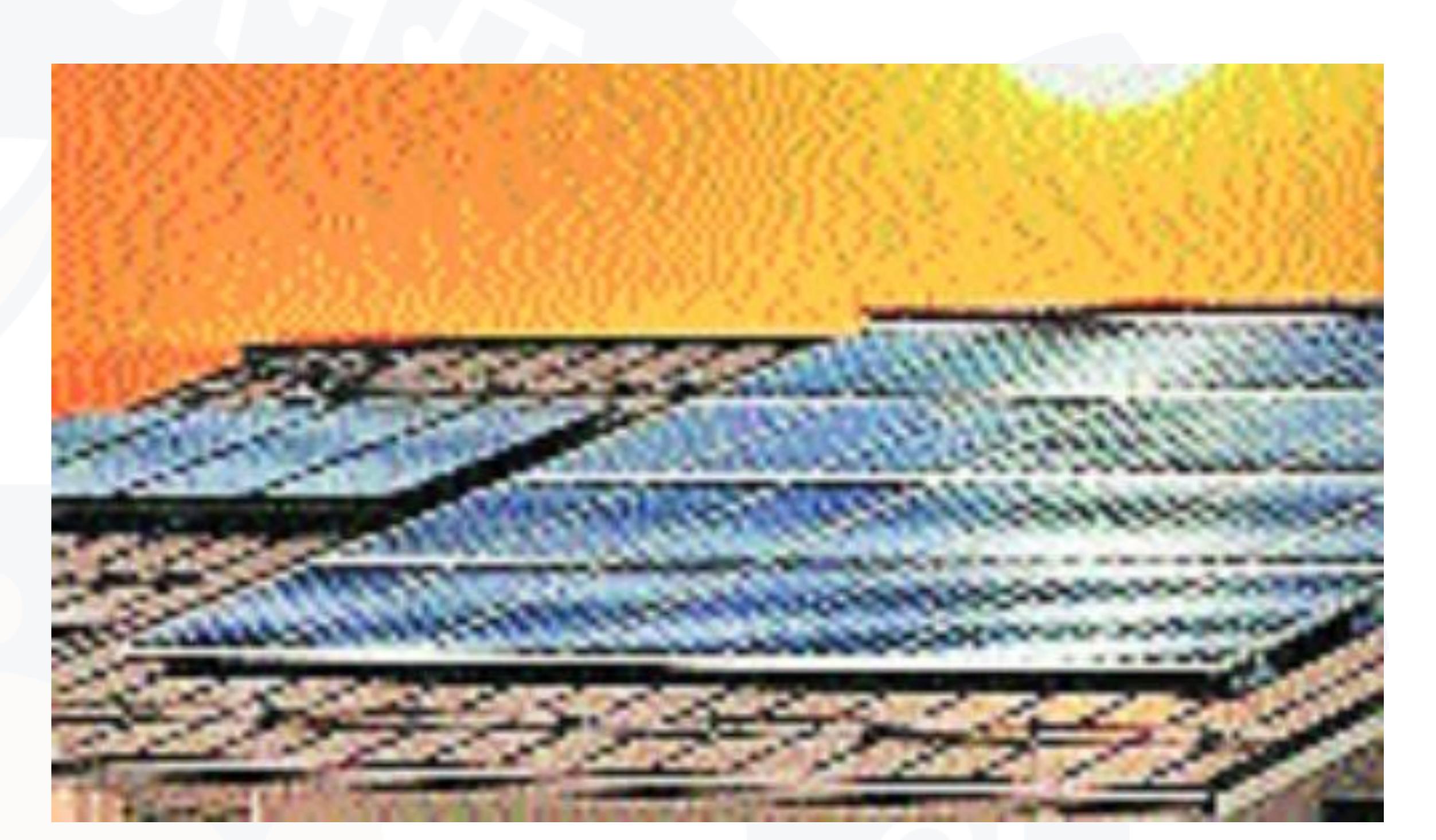
### Published in:



### NEERI eyeing recovery of valuable materials from solar panels

CSIR-NEERI 17<sup>th</sup> June, 2023

With increase in usage and installation of photo voltaic (PV) solar panels and the Government promoting solar energy, a new set of problems has arisen. For, this increase is projected to lead to a huge increase in generation of PV solar panel waste, whose disposal involves various aspects. Against this backdrop, CSIR-National Environmental Engineering Research Institute (NEERI) has



moved a proposal for recovery of valuable materials from the PV solar panels and also has proposed a protocol for scientific disposal of hazardous materials in these panels. Three top scientists of NEERI including Dr Atul Vaidya, Director of NEERI; Dr Sushant Wath, Principal Scientist; and Mahendra Patil, Chief Scientist, had first flagged the challenges regarding disposal of PV solar panels in their paper published in the Journal of Metallurgy and Materials Science last year.

Titled 'India's Solar Mission: Current Scenario and Challenges Ahead — An Overview', the paper pointed out that the increase in usage and installation had brought the 'associated problem' of generation of huge quantum of PV solar panel waste and more importantly its safe disposal. The major problem being the presence of various hazardous materials in PV panels. As per the experts, the average life-span of a PV solar panel ranges from 20-25 years. So, a huge quantum of end-of-life (EOL) PV solar panels is generated once their life-span is over. Besides, some get discarded earlier than that. Some also turn into waste due to natural calamity. In solar cells and other parts, several pollutants are found. These include Arsenic, Chromium, Lead, and Cadmium in batteries, Mercury, Brominated Fire Retardants etc. These hazardous materials in discarded panels have severe environmental and health implications, if



they are not handled and processed systematically and scientifically. This particular type of waste may "add up to already stressed existing waste management systems including municipal solid waste and hazardous industrial waste," observed the scientists in their paper. Further, they had pointed out that the processing of EOL PV panels mostly included mechanical, thermal, and chemical treatment in highly corrosive reagents including hydrochloric acid, sulphuric acid etc and hence it had certain limitations. One of the limitations is environmental concerns due to toxic emissions, high process waste in the form of sludge and wastewater.

Another limitation is regarding process economy, as such treatments are expensive and less efficient in terms of yield recovery and purity. Dr Sushant Wath told 'The Hitavada' that the waste PV solar panels contained hazardous as well as valuble materials. They could be a rich source of valuable materials such as aluminum, plastic, silicon, silver copper, and other rare earth materials such as indium, gallium, germanium etc. In view of shortage of requisite raw materials needed for development and production of PV solar panel within India, recovery of silver, silicon and other materials could be good option. "We are working on recovery of valuable materials like copper, silicon, silver etc. Hazardous materials can't be disposed of casually, they need scientific methods to avoid environmental pollution. there is need for delineating scientific processing interventions. Hence, we have also proposed protocol outline for scientific diposal of hazardous materials in PV solar panels," he said. The proposals of NEERI have been sent to Council of Scientific and Industrial Research (CSIR) headquarters under Waste-to-Wealth Mission. "CSIR headquarters and expert committee are reviewing our proposals for funding. In fact, a review meeting was held a couple of days ago. Based on their recommendation, we will come to know about status of our project proposal," said Dr Wath. Asked about reuse of the discarded solar panels, Dr Wath observed that it could at best prolong the final disposal but would not offer solution. Since the publication of the paper authored by Dr Vaidya, Dr Wath, and Patil, the Central Government has categorised solar panels as e-waste under E-Waste Rules of 2022. This is a good beginning and pave the way for further measures.

### Published in:

### Thehitavada



### Modified version of traditional artisans' furnace1

CSIR-IMMT, NML

12<sup>th</sup> June, 2023

CSIR-NML, Jamshedpur and CSIR-IMMT, Bhubaneswar have jointly transferred "Efficient Brass Melting Furnace" technology to M/s Aquatic Industries Pvt. Ltd., Pipili on 12th June 2023 at CSIR-IMMT Bhubaneswar.

This is modified version of traditional artisans' furnace having advantages of i) reduction of energy consumption by 20-40%, ii) less melting



time by 20 %, iii) less pollution, iv) increase of productivity by 30%. On this occasion, Dr. Ramanuj Narayan, Director, CSIR-IMMT, Dr. A. K. Sahu, Head, SPBD, Dr. R. Sakthivel, Head, AMT, Dr. A.K. Chaubey, Senior Principal scientist, Dr. Y.S. Chaudhary, Senior Principal scientist, CSIR-IMMT, Dr. K.L Sahoo, Chief Scientist from CSIR-NML, Mr. Zahir khan and Mr. A. Khan from Aquatic industries are present. As the construction of this furnace involves low cost materials, it is suitable for the use of artisans/MSMEs.



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