

PRESS RELEASE

IIT Mandi conducts NMHS workshop on Water Filtration Techniques Based on Solar Energy

It is a part of the National Mission on Himalayan Studies (NMHS) to build efficient Water Purification Systems with added minerals from locally sourced materials for Off-Grid Applications

MANDI, 18th February 2019: Indian Institute of Technology Mandi organized a NMHS workshop on Water Filtration Techniques Based on Solar Energy from 11th to 13th February 2019. It addressed the high-level issues relating to water purification, investigation of practical strategies and integration of renewable energy practitioners, project developers and industries. The workshop also covered drinking water status, waste water treatment systems, water borne diseases, water purification systems and their market for the Indian Scenario.

The 3-day workshop was attended by the students of IIT Mandi and other institutes. The aim of the workshop was to discuss the possible solutions and strategies to achieve the goal of developing a simple, cost-effective, easy to operate and maintain and socially acceptable Water Purification System by using Solar Thermal Energy (STE) and traditional knowledge of the Himalayan region. The workshop also introduced and demonstrated the 'Conventional Solar Stills' and 'Hydropanel', a device which converts air (moister) into the water.'

Speaking about the impact of the workshop, Dr. Bharat S Rajpurohit, Associate Professor, School of Computing and Electrical Engineering, IIT Mandi and Workshop Coordinator, said, *“Our institute is striving since its inception to address challenges faced by society with very low cost and simple technological solutions, which can be afforded by all. Access to safe drinking water is right of every citizen as well as shared responsibility to contribute to achieve this goal. Deliberations in workshop were helpful for participants in understanding available and possible solutions”.*

The workshop also provided a platform for an in-depth discussion on the various challenges like lack of awareness, low output per day, high cost and limited benefits which result in lack of public interest of a Solar Thermal Energy System (STE) and their possible remedies which will benefit participants from academic/ R&D institutions, engineers and policymakers. In addition, the potential issues looking beyond the existing research frontiers and independent of disciplinary boundaries were also discussed in the workshop.

Highlighting the unique aspects of this workshop, Dr Jaspreet Kaur Randhawa, Assistant Professor, School of Engineering, IIT Mandi, and Workshop Coordinator said, *“This is an interdisciplinary project where electric engineers will develop the accelerated evaporation/water purification system whereas material scientists will solve the issues of remineralisation. We will combine traditional knowledge with modern technologies to provide affordable water purification systems”.*

About National Mission on Himalayan Studies (NMHS) project

NMHS (National Mission on Himalayan Studies) is a venture of Ministry of Environment, Forest & Climate Change (MoEF&CC). NMHS supports innovative studies and related knowledge interventions (that do not tread on the beaten path) towards the sustenance and enhancement of the ecological, natural, cultural, and socio-economic assets and values of the Indian Himalayan Region.

'Development of Low Cost Accelerated Water Purification Systems with Added Mineralisation for Himalayan Region' is a part of NMHS study to develop a simple, low cost accelerated high-quality water purification system with added minerals from locally available materials for off-grid applications. Solar disinfection technologies have been proven as one of the most appropriate point-of-use water treatment (WT) methods, especially in remote regions where access to electrical power and/or chemical supplies are either restricted or unavailable. The project will develop a low cost accelerated Water Purification System by using solar thermal energy (STE). The study aims towards the application of scientific knowledge from various disciplines to have an efficient water purification system in this region.

###

About IIT Mandi (<http://www.iitmandi.ac.in/>)

Nestled in Sivalik Range of the Himalayas, IIT Mandi is fast emerging as a leader in science and technology education, knowledge creation and innovation, in an India marching towards a just, inclusive and sustainable society. Since the first batch of students took place in July 2009, IIT Mandi has grown to host 1,276 students including 274 PhD, 46 MS and 17 I-Ph.D. research scholars, 104 Faculty, 150 staff, and attracted funding to the tune of over Rs.70 crore for Research Projects. A growing body of alumni, nearly 850 in number, will become the champions of this institute as they assume leadership positions in industry, academia and administration.

From 1,280 students in 2018, the Institute aims to grow to 5,000 B.Tech, M.Tech/M.Sc. and M.S./Ph.D. by 2029. Currently, the campus has completed about 80,000 sq.m. of construction. Another 1,50,000 sq.m. is currently under construction. IIT Mandi has a fully residential campus with all students and 95 percent of the faculty residing within it.

Since 2010, IIT Mandi's faculty has bagged nearly 180 projects worth more than Rs. 85 Crore. IIT Mandi, in just 9 years of its existence, has been able to develop several labs and facilities on its campus here at Kamand, creating an extraordinary research ambiance. The Advanced Materials Research Centre (AMRC), created with an investment of about Rs. 50 crore, houses advanced instruments for the characterization of materials with scope for drug delivery, electrical, electronics and biological applications. Since its inception in 2013, the AMRC has contributed to more than 200 research publications.

The institute has an Interdisciplinary Academic Culture which is Design-oriented. The B.Tech. curriculum focuses on Real-World team projects from the Year One to Four A strong humanities component as well makes the IIT Mandi curriculum even more relevant to the society at large. There are many active MoUs with TU9 in Germany since May 2011.

Launched in 2016, IIT Mandi's very own technology-business incubator Catalyst is the first Technology Business Incubator (TBI) in Himachal Pradesh. It aims to incubate technology-based startups focused on economic and/or social impacts. EWOK (Enabling Women of Kamand Valley) is another very innovative program being run by IIT Mandi which focuses on Skills training village-scale businesses by village women using Internet and pervasive mobile network and Serving local and global customers.

Media contact for IIT Mandi:

IIT Mandi Media Cell - mediacell@iitmandi.ac.in

Akhil Vaidya –Footprint Global Communications

Cell: 9882102818 / Email ID: akhil.vaidya@footprintglobal.com

Samriddhi Bhal - Footprint Global Communications

Cell: 7905887524 / Email: samriddhi.bhal@footprintglobal.com

Palak Sakhuja - Footprint Global Communications

Cell: 9582338333 / Email: palak.sakhuja@footprintglobal.com

Shoma Bhardwaj - Footprint Global Communications

Cell: 9899960763/ Email: shoma.bhardwaj@footprintglobal.com

Bhavani Giddu - Footprint Global Communications

Cell: 9999500262 / Email: bhavani.giddu@footprintglobal.com