Apart from this, there will be lectures on allied topics such as statistical techniques, preparation of bankable project profiles, government subsidiary schemes, Food Laws, International regulations and good manufacturing practices, intellectual property rights, commercialization of technologies etc. and visits to different industrial facilities/ Institutions nearby Ludhiana.

## **How To Apply**

As per the ICAR guidelines, the interested candidates should register and apply online through 'Capacity Building Programme' (CBP) portal as follows:

- 1. Visit the website http://www.iasri.res.in/cbp/
- 2. Login using your user ID and Password. To create a user ID use the "Create New Account" link.
- 3. After login, click on the "Participate in Training" link and fill in the Performa. The approval (scanned copy) of the competent authority may also be sent by e-mail to the Course Director till November 21<sup>st</sup>, 2023. The advance scanned copy of the nomination may be sent by e-mail.

**Note:** The candidates will be notified about selection by November 22<sup>nd</sup>, 2023.

## **Important Dates**

LAST DATE OF APPLICATION

November 28, 2023 (Tuesday)

**COMMUNICATION TO PARTICIPANTS** 

November 28, 2023 (Tuesday)

COMMENCEMENT OF TRAINING
PROGRAMME

December 1<sup>st</sup>, 2023 (Friday)

#### Confirmation of participation by candidates

**Note:** Only selected candidates will be intimated by e-mail/ phone, to which they should promptly respond with firm acceptance and travel plans.

### Registration fee

The participants are required to pay a sum of Rs 50/- as a registration fee (non-refundable) by using the following link

https://ciphet.icar.gov.in/payment/processpayment.php.

## **Host City**

Ludhiana, popularly known as Manchester of India, is located on the bank of river Sutlej and is centrally located on the map of Punjab. Geographically, it lies between North latitude 30°-34' and 30°-01' and East longitude 75°-18' and 76°-20'. Ludhiana is located 100 km West from the state capital Chandigarh on NH 95. Being in the centre of Punjab and situated on Grand Trunk Road and the main railway line, it is well connected to New Delhi by road, train and air service. Ludhiana is famous for its hosiery and textiles, bicycle and sewing machine industry. Punjab is the granary of India, and Ludhiana is an industrial city, many food grain stocks and processing units are located around it.

### Weather

The weather in December typically feels cool, therefore Candidates are advised to bring winter clothes for a comfortable stay.

### APPLICATION MAY BE SENT TO

#### COURSE DIRECTOR

Dr Manju Bala

Principal Scientist and Head (Act.)

Food Grains & Oilseeds Processing Division, ICAR-Central Institute of Post-Harvest Engineering and Technology (CIPHET) PO: P.A.U. Ludhiana -141004

**Ph (O)**: 0161-2313136, **M:** +91 8437080473

E-mail: manju.bala1@icar.gov.in Website: www.ciphet.icar.gov.in

#### **COURSE COORDINATORS**

Dr. Swati Sethi (ARS) Scientist (SS),

Food Technology

Food Grains & Oilseeds Processing Division, ICAR-Central Institute of Post-Harvest Engineering and Technology (CIPHET),

Ludhiana-141004

**Ph (O):** 0161-2313165, **Mobile:** +91 9217479342

Email: Swati.Sethi@icar.gov.in

Dr. Pankaj Kumar (ARS) Scientist (SS),

Agricultural Structures & Process Engg., Food Grains & Oilseeds Processing Division, ICAR- CIPHET, Ludhiana - 141004 **Ph (O)** 0161-2313180, **M:** +91-8745025254

Email: Pankaj.kumar5@icar.gov.in

## **MAILING ADDRESS**

**Course Director** 

ICAR Winter School 01-21 December 2023

ICAR-Central Institute of Post-Harvest Engineering and Technology (CIPHET) PO: P.A.U. Ludhiana -141004 (Punjab)

#### INFORMATION BROCHURE

ICAR-Winter School

on

"Igniting the Millet Renaissance:
Advancing the Millet Year
with Post-Harvest Engineering &
Technology for Nutritional Security,
Loss Minimization
and Enhanced Profitability"

December 01-21, 2023

Sponsored by



Course Director
Dr. Manju Bala
Course Coordinators
Dr. Swati Sethi & Dr. Pankaj Kumar

Organized By



#### Food Grains & Oilseeds Processing Division

ICAR - Central Institute of Post-Harvest Engineering & Technology (CIPHET), PO: PAU, Ludhiana-141 004 (Punjab)

(An ISO 9001:2015 Certified Institute)

### **About The Course**

The Government of India recognized the significance of millets and officially designated them as "NutriCereals" in a Gazette notification on April 10, 2018. This decision was made with the aim of promoting millet production, consumption, and trade. In response to India's commitment to promote millets, the Food and Agricultural Organization (FAO) declared 2023 as the International Year of Millets (IYoM), with the goal of boosting the cultivation, processing, and consumption of various millet varieties. The 2022-23 Union Budget of the Government of India emphasized support for post-harvest value addition to enhance domestic consumption and diversification of cereal basket both nationally and internationally. This recognition highlights the potential of millets in achieving nutritional security and promoting entrepreneurial development. To support this initiative, a winter school program is been organized to comprehensively cover scientific aspects, advancements, commercial applications, research, and development trends related to millet processing. The course includes topics such as post-harvest engineering and technological interventions, loss minimization, entrepreneurship development, doubling farmers' income, establishing processing and value-addition facilities, branding, and packaging. The course will feature theoretical lectures and practical demonstrations by renowned speakers. The knowledge acquired during this winter school is expected to be invaluable for researchers, as it will aid them in planning future research programs tailored to the specific needs of the Indian population. Additionally, it will support the establishment of millet enterprises across the country. This initiative is anticipated to raise

awareness about the importance of millets beyond localized regions and promote their adoption throughout the entire country.

## **Eligibility**

Applications are invited from those working in the cadre of Assistant Professor or equivalent and above in the National Agricultural Research System (NARS) including State Agricultural Universities (SAUs), Deemed to be Universities (DUs), and Central Agricultural Universities (CAUs) with Master's Degree in Processing and Food Engineering/Post-Harvest Engineering & Technology/Food Engineering/ Food Science and Technology/ Food Technology/ Foods & Nutrition/ Horticulture/ Chemical Engineering/ Biochemical Engineering/ Biochemistry/ Microbiology/ Dairy Engineering/ Dairy Technology / Allied Sciences. The selection of the participants will be based on the ICAR guidelines.

# Maximum number of participants: 25

## Travelling, Boarding and Lodging Facilities

The travelling, boarding and lodging expenses of the selected candidates will be borne by the organizers as per ICAR guidelines. Participants will be paid to and fro fare by the shortest route as per their entitlement for the class of travel restricted to AC-II Tier fair in train subject to availability of funds. Participants are requested to produce the original and photocopies of the tickets in support of their claim (Air route is not advisable).



#### **Host Institute**

The ICAR-Central Institute of Post-Harvest Engineering and Technology (CIPHET), established in 1989 at Ludhiana, undertakes lead research in the area of the post-harvest engineering and value addition technologies appropriate to agricultural production catchments and agro-processing industries. The institute is also engaged in human resource and entrepreneurship development related to post-harvest operations performed on-farm as well as off-farm in order to minimize the post-harvest losses and empower the rural community with additional income. The Institute has two All India Coordinated Research Projects (AICRP) namely, AICRP on Post-Harvest Engineering & Technology (PHET) and Plastic Engineering in Agricultural Structures and Environment Control (PEASEM) with 31 and 14 cooperating centers, respectively, located all over India. It is also the coordination unit of one Consortium Research Project (CRP) on Secondary Agriculture. The Institute and its schemes are cater to the processing needs of all kinds of farm produce viz. cereals, pulses, oilseeds, fruits, vegetables, speciality crops and animal products.

scientific base with sufficient expertise in engineering and allied technology for carrying out research, providing technical and knowledge services and generating relevant information for national-level policies on post-harvest agriculture sector. The institute is equipped with NABL accredited food testing laboratory and post-harvest machinery testing center. The laboratories have state-of-the-art instruments and equipment for food quality evaluation. The institute also has pilot scale-facilities for millet processing, protein extraction, oil milling, cryogenic grinding etc.

The Institute has a strong multidisciplinary

### **Course Content**

This winter school covers the scientific aspects, advancements, commercial applications, research, and development trends related to millet processing including, plant designing, processing priorities in millets for minimizing losses, functional characteristics of nutri-cereals, entrepreneurship development, postharvest engineering strategies for doubling farmer's income and establishing millet-preneurs, mechanical approaches in the development of traditional products, innovative trends in millet processing, byproduct management and its utilization, challenges and opportunities in the mechanized processing of millets, smart storage structures, application of machine vision in agriculture and food industry, product branding and marketing, packaging, with the aid of theoretical lectures, practical and demonstrations.