

### How to Apply:

The interested candidates should apply online using CBP portal at [www.iasri.res.in/cbp](http://www.iasri.res.in/cbp) or under the link capacity building programme at [www.icar.org](http://www.icar.org) in latest by **October 31, 2017**. User has to create account on the CBP site and then using the login id enter into system to apply online for the training programme. After filling the online application, take a printout of the application and get it approved by the competent authority of the organization. Upload the scanned copy of application through CBP portal and send the hardcopy of approved application to course director. The selected candidates will be informed by post, fax and/or e-mail.

**FEE:** There is no fee for the training programme.

### Address for correspondence:

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### PATRON

**Dr. R.R.B. Singh**

*Director and Vice Chancellor  
ICAR-NDRI*

### CAFT DIRECTOR

**Dr. Latha Sabikhi**

*Head  
Dairy Technology Division*

### COURSE DIRECTOR

**Dr. P. Barnwal**

*Sr. Scientist  
Dairy Engineering Division*

### CO-COURSE DIRECTOR (s)

**Er. Chitranayak**

*Sr. Scientist  
Dairy Engineering Division*

**Er. P. S. Minz**

*Scientist (Sr. Scale)  
Dairy Engineering Division*



## ANNOUNCEMENT CUM INFORMATION BROCHURE

for

**National Training**

On

**Dairy and Food Process Engineering:  
Equipment, Processing and  
Value Addition**

**January 10-30, 2018 (21 days)**



*Sponsored by*



**Indian Council of Agricultural Research**

*Organized by*



**Centre of Advanced Faculty Training  
in Dairy Processing  
National Dairy Research Institute**  
(Deemed University)  
Karnal (Haryana) - 132001

## ABOUT THE COURSE

Dairy and food process engineering plays an important role in food preservation, value addition, reduction in postharvest losses of produce. It ensures more food availability to growing population. Engineering inputs are vital for modernization of dairy and food processing sector through proper education/ training. This training programme will be helpful for updating knowledge / skill of assistant professors/ faculties of various universities / institutes with recent developments in various dairy and food processing equipment, processing and value addition including quality aspects which will ultimately be beneficial to teaching, research and extension activities by the assistant professors/ faculties or participants.

## ELIGIBILITY

The training is open for faculty of SAU's, ICAR Institutes and Central Universities with Master's degree, working in the cadre not below the rank of Scientist, Assistant Professor or equivalent from the Faculties of Dairy Science, Agriculture Engineering, Food Engineering, Food science and Technology, Veterinary sciences and Home Science. The applicant must have 2 years teaching/research experience.

## T.A. & ACCOMMODATION

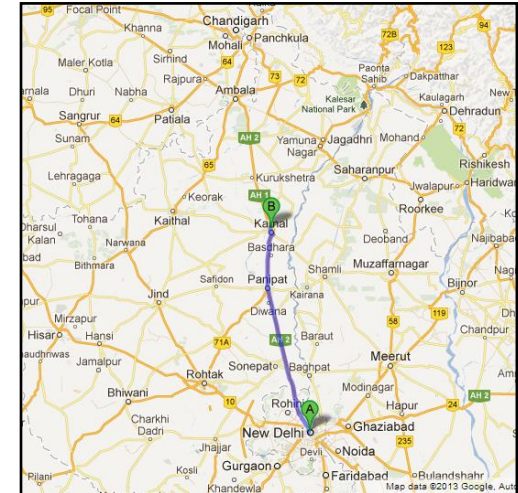
Expenses on lodging and boarding arrangements will be borne by the organizers. TA to participants from SAU's and other ICAR institutions will be paid as per their entitlement for the class of travel restricted to the maximum of AC II Tier fare by the shortest route. Participants are required to produce original tickets in support of their claim. **No TA will be paid in case of travel by flight/private taxi.**

## Dairy and Food Process Engineering: Equipment, Processing and Value Addition

### Course Contents

- Emerging Trends in Equipment, Processing and Value Addition of Dairy and Food Products
- Global Scenario of Dairy and Food Process Equipment Manufacturing Sector
- Emerging Trends in Thermal Treatment Equipment
- Engineering Properties of Dairy and Food Products in Relation to Design of Process Equipment's
- On Farm Processing for Enhancing the Income of Farmers
- Computer Vision Solutions for Food and Dairy Processing
- Developments in Intelligent Packaging Systems
- Membrane Processing in Dairy and Food Industry
- Dairy Plant Design and Layout
- Advances in multi effect evaporators for dairy and food processing
- Prospects of Mechanization of Traditional Indian Dairy Products
- Cryogenic Technology Applications in Dairy and Food Processing
- Rapid and Non-Destructive Method for Quality Evaluation of Foods
- Mathematical Modeling of Dairy and Food Processing Operations
- Scrapped Surface Heat Exchangers for Mechanized Production of Indian Dairy Products
- Importance of Rheology in Designing of Dairy and Food Processing Equipment
- Designing Aspects of Dryers for Dairy Products
- Advances in Solar Energy Applications
- Open Source CAD Software
- Application of Automation in Different R & D Activities
- Advances in Instruments and Sensors
- Micro Controller Based Sensing System
- Design of Cold Storages and Advances in Refrigeration and Freezing Applications
- Effective Energy Management Practices in Dairy and Food Sector

## Route Map from New Delhi to Karnal



## Weather at Karnal

The minimum and maximum temperatures at Karnal during January would be about 07°C and 20°C, respectively.

## Some Achievements of Dairy Engineering Division

