

❖ How to apply

As per ICAR instructions, 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 user ID use "Create New Account" link.
3. After login, click on "Participate in Training" link and fill the proforma.
4. Take a printout and send duly signed copy through proper channel to the Course Director (Dr. Naresh Kumar) by speed post.
5. The last date for receiving the nomination is **25th August, 2018**. The advance scanned copy of the nomination may be sent by e-mail (nkg6825@gmail.com; nrshgoyal@yahoo.com). In case total number of participants exceed 25, preference will be given on first come first serve basis.
6. Note: The candidates will be notified about selection latest by **5th September, 2018**. In case of any query please contact Course Director, Co-Director and Coordinators of this training program.

IMPORTANT DATES

Last date to apply: 25th August 2018

Communication to participants: 5th September, 2018

Commencement of training program: 4th Jan 2019

CAFT Director
Dr. Latha Sabikhi,
Head, Dairy Technology Division

Course Director
Dr. Naresh Kumar
PS, Dairy Microbiology Division,

Course Co-Director
Dr. Raghu H V
Scientist, Dairy Microbiology Division,

Course Coordinator
Dr. Rashmi HM
Scientist, Dairy Microbiology Division

For updates, kindly visit:

<http://www.iasri.res.in/cbp>
www.ndri.res.in
www.dairyprocessingcaft.com

Venue
National Referral Centre for Milk Quality and Safety,
Dairy Microbiology Division
ICAR-National Dairy Research Institute
Karnal (Haryana) – 132001



National Training Programme
on



Rapid Bio-sensors and Micro-techniques for Monitoring Contaminants and Adulterants in dairy foods

- ✓ Bacterial contaminants
- ✓ Antibiotic residues
- ✓ Pesticide residues
- ✓ Aflatoxin M1
- ✓ Rapid analysis
- ✓ Adulterants

Rapid and on site analysis of contaminants in milk

- ✓ QMS
- ✓ ISO 17025 Accreditation
- ✓ HACCP
- ✓ Biosafety concept
- ✓ Risk analysis
- ✓ Global standards

CAFT Course
04-24, Jan 2019

Control Test sample

Sponsored by:
Agricultural Education Division,
Indian Council of Agricultural Research

Organized by:
Centre of Advanced Faculty Training
in Dairy Processing,
ICAR-National Dairy Research Institute
(Deemed University), Karnal – 132001
(Haryana) India

KNOWLEDGE EXPERIENCE QUALITY AND SAFETY

❖ **About Course**

Biosensors are emerging as an attractive solution for rapid detection of food-borne pathogens, toxins, pesticides and drug residues and heavy metal in foods. Biosensors combine the selectivity of biology with the processing power of modern science to offer novel analytical tools for food and processing industries, medicine and environmental diagnostics. Biosensors are gaining importance and popularity over conventional analytical techniques because of specificity, low cost, fast response time, portability, ease of use and continuous real-time signal. Conventional methods, on the other hand, are costly, laboratory-bound and require trained personnel. Biosensors offer rapid and accurate detection with minimal sample preparation. ICAR-NDRI has developed expertise in the field of biosensor and developed various rapid tests/assay(s). Many technologies have been commercialized in last one decades. In view of globalization of food safety standards and their harmonization at national level by FSSAI, novel micro-techniques have immense application in food safety and quality assurance.

❖ **Course Content**

The course curriculum has been designed to cover various aspects on biosensors, rapid micro-techniques for monitoring microbial & non-microbial contaminants in milk, QMS, food safety & biosafety concepts, laboratory accreditation, food safety standards, microbiological risk analysis, bio-preservation of dairy foods, IPR in agriculture, lateral flow assay, detection of antibiotic, pesticide, aflatoxin M1 and adulteration in milk. The course comprises theory lectures as well as practical demonstration by resource person from NDRI and associated institutions / industry.

❖ **Highlights of the training**

- Spore based biosensors for quality and safety assurance
- Lateral flow assay-Principle and its application
- Rapid detection of antibiotic, pesticide, aflatoxin M1 and adulteration in milk
- SPR and flow cytometry based techniques
- Conventional and molecular identification of bacterial contamination
- Rapid techniques for adulteration in milk
- Advanced techniques and instrumentation for quality assurance of milk
- Biochip based methods for pathogen detection
- Techniques in proteomics and bioinformatics
- Global Food safety and ISO:9001 standards
- Risk analysis concept in global food trades
- Bio-safety concepts in food laboratory
- Laboratory accreditation: ISO:17025

❖ **About ICAR-NDRI, Karnal**

The National Dairy Research Institute as country's premier Dairy Research institution has developed considerable expertise over the last five decades in different areas of Dairy Production, Processing, Management and Human Resource Development. Information generated at the Institute and the services offered have contributed to the growth of Dairy Industry. Realizing the challenging need of global Dairy Trade, the Institute is continuously working to develop its R&D and HRD programmes to better serve the nation in terms of food security, employment generation, poverty alleviation and economic prosperity.

❖Eligibility The training is open for faculty of SAU's, ICAR institutes and central universities with master's degree (dairy microbiology / dairy chemistry / dairy technology / food technology / food safety and quality assurance / veterinary microbiology / food microbiology / food chemistry / biotechnology / biochemistry/ animal bio-chemistry / human nutrition/ livestock products technology / allied disciplines) working in the cadre not below the rank of scientist, assistant professor or equivalent from the faculties of dairy science, agriculture, food science and technology and veterinary sciences.

❖T.A. & Accommodation Expenses on lodging and boarding arrangements for selected participants will be borne by the organizers. TA to the 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 the original and photocopies of tickets in support of their claim (Air route is not admissible).

❖ **Address for Correspondence**

Course Director: Dr. Naresh Kumar

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Course Co-Director: Dr. Raghu H V

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