Eligibility

Faculty members or scientists working in the level of Assistant Professor or equivalent and above/Researchers who are employed in Central/State Government SAUs/KVK/ CAU.

Provision of accommodation

The participants shall be provided accommodation. In view of the shortage of space, participants may have to share room with others. Participants are advised not to bring their families, as accommodation for them is not possible.

Travel allowance

Reimbursement of participants' travel expenses will be done for the journey as per ICAR guidelines. Participants are required to produce money receipt/ tickets in support of their claims.

How to Apply?

A sum of Rs. 50/- (Rupees Fifty only) have to be paid by the participants towards registration fee (Non-refundable). Applicants should upload the draft/payment receipt along with complete application. The fee may be paid to ICAR UNIT CIFE MUMBAI (Account No. 10132355212), SBI Versova Branch, IFSC Code: SBIN0003117.

Interested participants shall register and apply online through https://cbp.icar.gov.in. After login, click on "Participate in Training" link, fill the proforma and send the duly signed copy through proper channel to the Course Director. Advance scanned copy of the application may be sent by email to sanathkumar@cife.edu.in / manjusha@cife.edu.in

Last date for receipt of applications
31/12/2024

PROGRAMME DIRECTOR

Dr. Ravishankar C. N.
Director / Vice-Chancellor
ICAR-CIFE, Mumbai

COURSE DIRECTOR

Dr. B. B. Nayak
Principal Scientist & Head
FRHPHM Division

COURSE COORDINATORS

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ICAR-SPONSORED
21 DAYS WINTER SCHOOL
Analytical Tools in Seafood Quality Management and Risk Assessment
08 to 28 January 2025

ICAR-Central Institute of Fisheries Education, Mumbai

(Deemed to-be University)
www.cife.edu.in

ICAR-Sponsored 21 Days Winter School
Analytical Tools in Seafood Quality Management and Risk Assessment
08 to 28 January, 2025

About the Winter School

Effective seafood quality management and risk assessment relies on the application of a range of analytical tools. These tools enable the identification, quantification, and mitigation of hazards, and help to ensure seafood quality and safety throughout the supply chain. In the context of global regulatory frameworks on the quality and safety of fish and fishery products, it is imperative that such tools are developed and employed effectively to meet the standards in the global seafood trade. The techniques include those which help to determine the physical, chemical and microbiological qualities of fish and shellfish.

For microbiological risk assessment, apart from conventional microbiological methods, molecular techniques such as PCR and qPCR are employed. For pathogen typing, pathogen source tracking and to understand antimicrobial resistance mechanisms, Whole Genome Sequencing (WGS) technique is employed. Metagenomics involving high-throughput sequencing are used for microbial community profiling in seafood, harvest and post-harvest environment.

For physical and biochemical analysis, instruments such as texture profile analyzer, rheometer, color analyzer etc are used. Chemical analyses involving identification of chemical contaminants and spoilage indicators, chromatography techniques such as the Gas/liquid Chromatography-Mass Spectrometry (GC-MS) are widely employed. Biosensor, nanotechnology, blockchain and iOT are some of the emerging technologies that combine the physico-chemical changes and the predictive algorithms to monitor and manage seafood quality.

Course contents

- Analysis of fish & shellfish for biochemical and microbiological quality parameters using standard methods
- Microbiological risk assessment methods for fish and shellfish
- Biochemical techniques for quality analysis of fresh fish and fish products such as texture profile, rheology, color analysis, antioxidant assays
- Molecular methods of seafood pathogen detection- PCR, Real-Time PCR, colony hybridization, PCR-MPN, spoilage and pathogen microbiome
- Pathogen typing methods, bioinformatic methods, WGS and metagenomic analysis
- Application of analytical methods such as LC/GC for detection of emerging contaminants
- Quality management systems, risk assessment, international regulations, ISO, FSSAI standards, HACCP
- Fish species authentication methods

About ICAR-Central Institute of Fisheries Education

ICAR-Central Institute of Fisheries Education (CIFE), in over 60 years of existence, has emerged as a Centre of Excellence in Higher Education in Fisheries and allied disciplines. The Institute was established on 6th June 1961, under the Ministry of Agriculture, Govt. of India with assistance from FAO/UNDP. It came under the administrative control of Indian Council of Agricultural Research (ICAR) in 1979. Considering the wide mandate involving education, research and extension and recognizing the pivotal role played by CIFE in human resources development in fisheries, the institute was conferred the status of Deemed-to-be University in 1989. ICAR-CIFE is now placed in a new campus with state-of-the-art facilities and located about 8 km from the domestic and international airports and 20 km from Dadar railway station, a major rail terminus in Mumbai. The training will be conducted in the Seven Bungalows campus of CIFE.

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Central Institute of Fisheries Education
Mumbai, India