

personnel, official from Fisheries Department, Fisheries graduates.

- To educate fisheries graduates on international trade systems prevailing in different countries in order to make them industry ready human resource.

### Eligibility

Industry personnel, Official from Fisheries Department, Fisheries graduates and undergraduates

### Important dates

Last date of receipt of application: 02<sup>nd</sup> January, 2020

#### Application may be sent to,

The interested candidates shall submit the duly filled application form in the prescribed format. The applications can also be sent to below given-mail address

amjadbalange@cife.edu.in

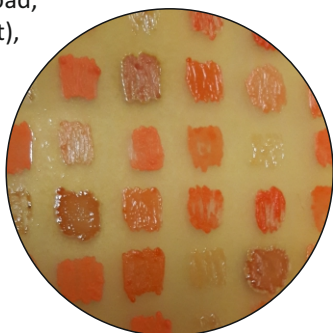
nayakbb@cife.edu.in

(Please write : Application for Skilled Development Program "Quality Control and Certification of fish and fishery products" on the envelop or in subject)

### How to reach

ICAR- Central Institute of Fisheries Education is located in Mumbai and well connected with Road, Rail and Air. The distance between the Centre and Andheri railway station is only 3.4 km, the distance from Versova metro station is only 550 m. Frequent bus, auto and taxi services are available throughout the day from any part of the city.

Address: ICAR- Central Institute of Fisheries Education  
Panch Marg, Off.Yari Road,  
Versova, Andheri (west),  
Mumbai 400 061



Program Director

**Dr. Gopal Krishna**

Director/Vice-Chancellor/ PI – NAHEP

Course Director

**Dr. B. B. Nayak**

HoD/ Principal Scientist/ Co-PI – NAHEP

Course Coordinator (s)

**Dr. A. K. Balange**

Senior Scientist/ Co-PI – NAHEP

**Dr. Sanath Kumar H.**

Senior Scientist/ Co-PI – NAHEP

**Dr. Martin Xavier**

Scientist/ Co-PI – NAHEP

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Scientist/ Co-PI – NAHEP



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# Skill Development Programme on Quality Control and Certification of Fish and Fishery Products

6<sup>th</sup> to 10<sup>th</sup> January, 2020

Supported by  
National Agricultural Higher Education Project (NAHEP)  
Organized by  
ICAR-CIFE, Seven Bungalows, Mumbai



**NAHEP**

भा.कृ.अनु.प.-केन्द्रीय मात्स्यकी शिक्षा संस्थान  
मुंबई

**ICAR-Central Institute of Fisheries Education**  
Mumbai

## About ICAR - CIFE

ICAR-Central Institute of Fisheries Education (CIFE) is a leading Fisheries University having a distinguished heritage and has nurtured many illustrious scholars and leaders over the years. CIFE has emerged as a center of excellence for 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) on 16th April 1979 and subsequently, the scope and mandate have been widened to include education, research and extension. The university has six major divisions including Aquaculture; Fisheries Resources, Harvest and Post-Harvest; Fish Genetics and Biotechnology; Aquatic Environment and Health Management; Fish Nutrition and Biochemistry and Fisheries Economics, Extension and Statistics.

Under the Fisheries Resource Management and Post-harvest Technology Division the highly essential study of post-harvest management practices for reducing post-harvest losses and providing good quality fish to the people is taken. The basic knowledge about fish body composition and spoilage mechanisms helps in understanding the principle of fish preservation. The trained man power with knowledge on handling, packaging, transportation and preservation of fish and seafood is highly essential for overall quality improvement of fish. In this regard, Division of Fisheries Resources, harvest & Postharvest Management is making effort to upgrade the skills of students, industry personnel and government officials along with running Masters and Ph.D courses in Fisheries Resource Management (FRM) and Post-harvest Technology (PHT) and involved in research, training, extension and consultancy in fish processing, value added fish products development, fish quality and safety etc.

The National Agriculture Higher Education Project is

funded by World Bank and Government of India and implemented at CIFE. The thematic area of the project is "Development of Energy Efficient and Environment Protective Aquaculture Technologies for Degraded Soils. The main objective of the project is to develop competent human resource in the advanced agricultural science and technology.

## The training programme

Organized by :ICAR – Central Institute of Fisheries Education, Mumbai

Funded by: National Agriculture Higher Education Project (NAHEP)

## Content

### Theory

- Microorganisms in seafood quality and safety- Nature and activity of microbes in fish and fishery products, Sources of pathogens in seafood, - Bacteria of public health significance- E.coli, staphylococcus, Vibrios, Salmonella, Listeria.
- Quality assessment in fish and fishery products- physical, chemical, organoleptical and microbial quality standards
- General aspects of seafood quality and management system- Quality management, Total Quality concept and application in fish trade
- Seafood quality regulations: International trade perspectives- GMP, HACCP, ISO 9000 series, Codex alimentarius, USDA, EU regulations
- Factory sanitation and hygienation

### Practical

- Laboratory techniques to detect and identify pathogens in fish
- Evaluation of fish and fishery products for organoleptic, chemical and microbial quality
- Quality management system
- Field visit to processing plant
- Evaluation of sanitary conditions of fish processing units
- Operation and maintenance of machinery and

- equipments of fish processing plants
- Audits

## Quality Control and Certification of Fish and Fishery Products

Seafood is a highly perishable product and the need for quality control is recognized as an essential discipline to guarantee safe, wholesome and functional fisheries products. With the ever changing dynamics of seafood certification, it has become difficult for developing countries to cope up. So this skill development programme will give hands-on training to industry people, students and others to become industry ready human resource.

The globalisation of food chains and suppliers has increased the complexity and potential risks of the seafood product business. There exists a risk of seafood contamination with pathogens of human health significance and also improper handling can lead to accumulation of toxins and lead to consumer's health risks. So governments and the fishery industry in developed and developing countries have embarked on an important conceptual change of fish related regulations, including inspection, handling and processing, import-export and marketing.

Seafood quality control are the operational techniques and activities that are used to fulfill requirements for supplying quality seafood. On the other hand, quality assurance addresses the issues of managing safety, quality and logistics throughout the supply chain. It involves certification processes such as auditing, testing and inspection of the product at each stage to verify that it satisfies food safety and regulatory requirements.

## Objectives

1. To create awareness about hygienic handling of fish
2. To provide hands-on training on quality control, quality assurance and certification to industry