### How to apply

Interested participants should email filled Application form in the prescribed format given to Course Director & Course Co-Director along with Google form.

ICAR-Sponsored 21-Days Winter School

# **Smart Feed for Smart Aquaculture**

07 - 27 January, 2026

### **Application form**

Name
Date of Birth

3. Educational Qualifications

Degree & College/Institute/University):

1) Bachelors

2) Masters :

3) Ph.D. :

4. Designation :

5. Discipline/Specialization:

6. Institute & Department

7. Institute's Address :

8. E-mail ID :

9. Mobile No. :

10. Aadhar Card No.

Signature of the Applicant with Date

Signature & Seal of the Forwarding Authority

Google form <a href="https://forms.gle/dnWSsMJPHXJU6QvK9">https://forms.gle/dnWSsMJPHXJU6QvK9</a>

( A maximum of 25 candidates will be selected )

#### Patron

Dr. N. P. Sahu

Director, ICAR-CIFE, Mumbai

#### **Course Director**

#### Dr. Kedar Nath Mohanta

Principal Scientist & Head Division of FNBP +91 8895211657 kedarnath@cife.edu.in

#### **Course Coordinator**

#### Dr. Prem Kumar

Principal Scientist +91 7063564479 premkumar@cife.edu.in

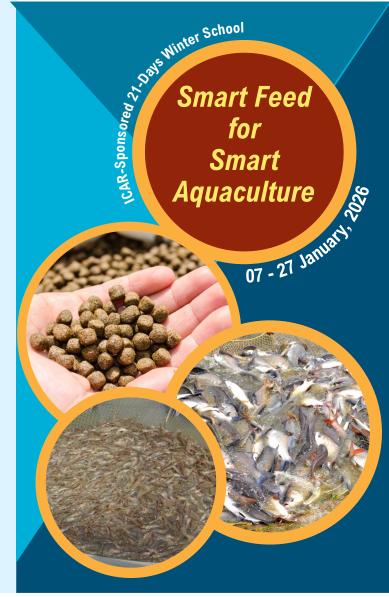
#### **Co-Coordinators**

Dr. Subodh Gupta Dr. Ashutosh D. Deo Dr. Sikendra Kumar Dr. Manish Jayant Dr. Aditya D. Deshpande



#### ICAR-Central Institute of Fisheries Education (CIFE)

Panch Marg, Off. Yari Road Versova, Andheri (W), Mumbai- 400061 www.cife.edu.in







Division of Fish Nutrition, Biochemistry and Physiology ICAR-Central Institute of Fisheries Education Mumbai

NABL Accredited, ISO-2015 Certified Institute

### **Background**

Aquaculture is the fastest-growing agricultural production sector with an annual growth rate of over 8-10% over the past two decades. In aquaculture, feed is the critical input, costing 6070% of the total operational cost. However, achieving the targeted level of fish production is not possible without supplementary feed. Currently, feed-based aquaculture (excluding shrimp) in India is less than 15%. To meet the targeted fish production of 6.0 tons/ha from the present level of 3.0 tons/ha, the feed-based aquaculture needs to increase by 1.5 to 2 times from the present level. Although there are several challenges lies in aquafeed sector to achieve this target, the main objective of the present 21-days ICAR sponsored winter school training programme on "Smart Feed for Smart Aquaculture" is to refresh the knowledge of the trainees on recent advances in fish nutrition research such as nutrient requirements of

commercial important species, feed formulation, novel feed resources, feed technology for commercial feed production, nutrient and energy budget, metabolic activity, digestion and absorption of nutrients, climate smart feed to mitigate the biotic and abiotic stress of fish, feed additives and nutraceuticals, production of designer/nutrient enriched fish to meet the demand of the elite population of society, balancing the gut microbial health, production of sustainable aquafeed, feeds for organic and natural farming of fish, broodstock and larval feeds, ornamental fish feed, live feed and their enrichment, fish behaviour and feeding habit, feeding protocol and feed management practices, feed standards, feeds developed by different ICAR Institutes, feed storage and marketing, feed quality and safety, quality evaluation of the farmed fish, emerging diseases and health management of fish, fish culture in biofloc system and feed and feeding management of high density fish culture.

### **About ICAR-CIFE**

ICAR-Central Institute of Fisheries Education (CIFE), in it's over 60 years of existence, has emerged as a Centre of Excellence in higher education in fisheries and allied disciplines. Established on June 6, 1961, under the Ministry of Agriculture, Government of India, with assistance from FAO/UNDP, it came under the administrative control of the Indian Council of Agricultural Research (ICAR) in 1979. Recognizing its wide mandate in education, research, and extension, and its pivotal role in human resource development in fisheries, the institute was conferred the status of Deemed-to-be-University in 1989. ICAR-CIFE is now situated in new campus with state-of-the-art facilities, located approximately 8 km away from domestic and international airports and 10-15 km from railway station, Mumbai.

#### About Fish Nutrition, Biochemistry and Physiology Division

The Fish Nutrition, Biochemistry and Physiology (FNBP) Division of ICAR-CIFE, Mumbai,

has been actively involved in basic, strategic and applied research on fish nutrition, feed technology and fish physiology and biochemistry. The division has studied the nutrient requirements of important commercial fish and shellfish species, developed and commercialized several feed formulations, obtained many patents, and significantly contributed to education and human resource development in aquafeed. The division has developed various types of feeds, including winter feed for winter aquaculture, medicated feed for the better health and well-being of fish and shellfish, Argulin feed to control outbreaks of Argulus infection, ornamental fish feed for better growth and coloration, nutraceuticals, feed additives, Gonopro-FH (inducing hormone for breeding), green feeds, and feeds for the culture of fish and shellfish in inland saline water. Furthermore, the division is actively working to develop system-specific feeds (for fish culture in RAS and biofloc systems), climate-smart feed, broodstock and larval feeds, and feeds for new and emerging candidate species for aquaculture. The division is well-equipped with modern instruments for study on stress physiology, reproductive physiology, endocrinology, biochemistry and molecular nutrition of fish and shellfish.



#### **Major Topics**

- 1. Nutrient Requirement, Feed Formulation, Production & Quality Assurance of Aquafeed
- 2. De-novo Feed Ingredients
- 3. Broodstock and Larval Feed
- 4. Climate Smart and Medicated Feed
- 5. Feed and Feeding Management in Different Farming Systems
- 6. Live Feed and Nano Nutrition
- 7. IPR in Fisheries and Aquaculture
- 8. Stress Management through Dietary Intervention
- 9. Feed and Feeding in Precision Aquaculture
- 10. IPR in Fisheries and Aquaculture

### **Eligibility**

All Researchers/Academicians/ Experts from relevant disciplines who are in permanent position as Scientist or Assistant Professor or SMS in ICAR Institutes/Universities/KVKs.

## Travelling, boarding and lodging facilities

Free boarding and lodging (twin sharing basis) will be provided by ICAR-CIFE. The travelling for the selected participants will be paid to and fro by the shortest route. For the class of travel restricted to AC-II fare in train and are requested to produce their original along with photocopies of the tickets in support of their claim. Participants are advised to not to bring their family members together because of limited accommodation facilities.

### Weather at Mumbai during training period

As such the Mumbai boasts a pleasant weather throughout the year, with little variations in every proceeding month. In the month of January, the temperature of Mumbai averages around 25-30°C during daytime and it falls an average of 17-20°C in night.

#### **Registration Fee**

Rs. 50/- (Fifty rupees only)