



ICAR-CENTRAL INSTITUTE OF FISHERIES EDUCATION
(Deemed University), Kolkata Centre

SHORT COURSE ON
ENTREPRENEURSHIP DEVELOPMENT IN FISH
FEED MANUFACTURING AND FEEDING
MANAGEMENT

23rd November to 22nd December, 2026



ICAR-CENTRAL INSTITUTE OF FISHERIES EDUCATION

32-GN Block, Sector-V, Salt Lake City, Kolkata-700091

(Deemed University), Kolkata Centre

ICAR-CENTRAL INSTITUTE OF FISHERIES EDUCATION

Legacy, leadership and fisheries education

ICAR-Central Institute of Fisheries Education

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. In over 50 years of existence, CIFE has emerged as a Centre 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.

Recognizing the pivotal role played by CIFE in human resources development in fisheries, the institute was conferred the status of Deemed-to-be-University on 29th March 1989. Encouraged by the new status, the University grew by leaps and bounds. Building professional capabilities and competencies of more than 4000 State fisheries extension and development personnel since 1961, the emphasis has always been on quality education. Now CIFE is a knowledge powerhouse and a brand name in fisheries higher education.

From a modest beginning in 1961, CIFE is now located in a new campus with state-of-the-art facilities and is looking forward to the future with great optimism and excitement. As a leading university, CIFE seeks to innovate and adopt best practices in educational and research programmes that prepare students to be leaders in the respective domains. CIFE has created an ecosystem of teaching and research excellence making it a preferred destination of students. The breadth of disciplines and collaboration among constituent institutions give unparalleled opportunity to students to cross departmental boundaries and explore different horizons.



A leading Fisheries University with a distinguished heritage and a national mandate in education, research and extension

**Established
6th June 1961**

**Deemed-to-be-
University
29th March 1989**

**More than 4000
professionals
trained**

AT A GLANCE



ICAR-CIFE, Kolkata Centre has historical importance in imparting fisheries education in India. It was established in 1947 as “Inland Fisheries Training Centre (IFTC)” under Central Inland Fisheries Research Institute (CIFRI), Barrackpore in West Bengal. This Centre was solely responsible for providing trained manpower to fisheries sector in the country as during that time there was no fisheries college or university. It was taken over by CIFE, Mumbai in October, 1967. The CIFE along with its various centres were brought under the aegis of the ICAR in April, 1979. The Centre was shifted to its own new building complex, established at 32-GN Block, Sector -V, Salt Lake City, Kolkata in June, 1997 and started functioning under the name of “CIFE, KOLKATA CENTRE”.



BACKGROUND AND COURSE FRAMEWORK

BACKGROUND

The global population will reach more than 9 billion by 2050. Thus, ensuring nutritional security for this huge global population is one of the most daunting challenges facing researchers in the 21st century. Being the fastest-growing food production sector, aquaculture will play a pivotal role in supplying protein-rich food to the ever-growing human population. As there is little scope for horizontal expansion, the implementation of feed-based intensified aquaculture would be the right approach to meet the huge demand for fish. Carps have been the mainstay of aquaculture practices in India, where three Indian major carps, viz., catla, rohu and mrigal, together with three exotic carps, viz., silver carp, grass carp and common carp, contribute over 85% of the country's aquaculture production. Thus, India is considered a carp country. In India, semi-intensive carp polyculture is prevalent among farmers. In this system, both natural food and artificial supplementary feed play pivotal roles in improving fish production. Natural food production can be optimized through the proper manuring and fertilization of ponds, while farm-made and factory-made artificial feeds can be used as supplementary feeds. As feed alone contributes more than 50% of the operational cost of aquaculture, its quality should not be compromised. However, of the 2.9 MMT of commercial aquafeed produced in India, very little quantity is available for carp culture. Moreover, most farmers, especially small and marginal farmers, are reluctant to use factory-made commercial feed because of its high cost. Thus, the majority of farmers are using low-quality farm-made feed for carp culture, resulting in comparatively lower production. Accordingly, more than 10 MMT of farm-made feed remains unnoticed. Moreover, the overdependence of Indian aquaculture on carps can be minimized through species diversification. In this direction, singhi, magur, giant freshwater prawn, pabda, fast-growing GIFT and/or monosex tilapia, etc., could be appropriate species. However, the availability of commercial feed for most food fish species as well as ornamental fish species is limited. With these considerations, the ICAR-CIFE, Kolkata Centre, has planned to organize a short course on “Entrepreneurship Development in Fish Feed Manufacturing and Feeding Management” for the benefit of various stakeholders, especially unemployed educated youth who can initiate start-up programmes for livelihood enhancement and ensure the supply of fish feed to support feed-based aquaculture. Moreover, after completing this course, skilled youth will have opportunities to secure jobs in commercial feed companies.

LEARNING OBJECTIVES OF COURSE

1. To impart knowledge about various methods of aquafeed formulation, manufacturing, and quality control
2. To develop skilled manpower or entrepreneurs for aquafeed manufacturing

COURSE AT A GLANCE

DURATION: 30 DAYS

TIME ALLOTMENT FOR THEORY AND PRACTICAL CLASSES

Sl. No.	Course	Theory (Hours)	Practical (Hours)
1.	AF 101	20	18
2.	AF 102	16	18
3.	AF 103	0	24
Total		36	60

COURSE CONTENTS

Theory, practical, field visits and attachment

1. AF101: FISH/SHRIMP FEED FORMULATION

THEORY

1. Present status and need of feed-based aquaculture in India
2. Potential feed ingredients for aquafeed
3. Aquafeed ingredients marketing
4. Quality control of aquafeed ingredients
5. Storage of aquafeed ingredients
6. Anti-nutritional factors in plant-based ingredients: effects and their remedial measures
7. Nutrient requirements of finfish and shellfish
8. Food and feeding habits of fish/shrimp
9. Digestive physiology of fish/shrimp
10. Feed additives for aquafeed
11. Formulation of aquafeed

PRACTICAL

1. Laboratory safety and management
2. Preparation of standard solutions
3. Identification of different locally available feed ingredients
4. Proximate analysis of feed ingredients
5. Demonstration of aquafeed formulation using different methods



2. AF102: AQUAFEED PREPARATION AND FEEDING MANAGEMENT

THEORY

1. Machineries used for commercial aquafeed preparation
2. Preparation methods of aquafeed
3. Quality control of aquafeed
4. Storage of aquafeed
5. Commercial aquafeed marketing
6. Feeding strategies in feed-based aquaculture
7. Ornamental fish feed preparation and feeding
8. Water quality in relation to feed and feeding
9. Management of nutritional diseases in aquaculture

PRACTICAL

1. Proximate analysis of aquafeed
2. Total carotenoid estimation in ornamental feed
3. Assessment of water stability of pellets
4. Determination of sinking rate of pellets
5. Analysis of water quality parameters



3. AF103: FIELD VISIT AND ATTACHMENT

1. Visit and attachment at feed mills
2. Visit to progressive and feed-based fish farms

ASSESSMENT, OPPORTUNITIES AND PARTICIPATION

Key information for applicants

EVALUATION

- The course will be evaluated for 100 marks. The breakup of the marks would be as follows. Pass marks: 60% of the total marks
- Theory and practical exams: 70 (40 + 30)
- Field report preparation and presentation: 30

ELIGIBILITY FOR THE SHORT COURSE

- Aspiring entrepreneurs, professionals, officials, students, researchers and others engaged in fisheries sector
- Participants should be 10th pass from a recognized board of India
- There is no age limit

JOB OR EMPLOYMENT OPPORTUNITIES

1. Aquafeed mill technician/operator
2. Quality control inspector/technician
3. Feed-based aquafarm manager
4. Entrepreneur in aquafeed production
5. Aquafeed technical sales manager
6. Research and development officer
7. Supply chain and procurement manager
8. Teaching and extension expert

COURSE FEE AND PARTICIPANT INFORMATION

COURSE FEE

**Rs. 5900/-
(Rs. 5000/ + 18% GST)**

Course fee of Rs. 5900/- (Rs. 5000/ + 18% GST) should be paid to the current account no. 10224931725 of ICAR (CIFE Sub Unit), Kolkata payable at State Bank of India, Salt Lake Electronic Complex Branch (IFSC SBIN0009985) or in cash. Payment should be made before start of the short course.

NO. OF CANDIDATES

20 candidates will be selected

TRAVEL ASSISTANCE

Participants interested to undergo the short course will have to bear their own TA/DA expenditure.

MEDIUM OF INSTRUCTION

English, Hindi and Bengali

BOARDING AND LODGING

Boarding and lodging for the participants will be arranged in the hostel of ICAR-CIFE, Kolkata Centre. The Hostel fee of Rs. 2000/- per person for entire course and food charge will be Rs. 200/- per person per day to be borne by the participants.

HOW TO REACH AND HOW TO APPLY

Application deadline: on or before 10th November 2026

HOW TO REACH



ICAR-CIFE, Kolkata Centre is located in the Sector-V of Salt Lake City, Kolkata. The Centre is well connected with Road, Rail and Air. Netaji Subhash Chandra Bose International Airport at Dumdum is only 16 km away. The distance between the Centre and railway stations of Howrah and Sealdah are 18 and 10 km, respectively. Frequent bus and taxi services are available throughout the day from any part of the city. The Nicco Park, BenFish, Meen Bhawan and National Council of Science Museum are located at the vicinity of the Centre. The nearest bus stoppage is Swasthya Bhawan/ Meen Bhawan.

Nearest bus stop

**Swasthya Bhawan /
Meen Bhawan**

Distances

**Airport: 16 km
Howrah: 18 km
Sealdah: 10 km**

HOW TO APPLY



The applicant has to apply online through CASH Portal (<https://www.cife.edu.in/CASH-Training-Portal/trainees-login>) on or before 10th November 2026. The detailed process of online application is mentioned below.

Step-by-Step Guide: How to Apply for Training on ICAR-CIFE CASH Portal

1

Step 1: Open the Registration Page

Go to the official portal:
<https://www.cife.edu.in/CASH-Training-Portal/trainees-login>

2

Step 2: Register Yourself

Click on "Register Yourself" below the login form.
Fill in the required details:

- Full Name in English and Hindi (Ensure spelling is correct—same will appear on your certificate)
- Email ID and Mobile Number
- Date of Birth, Gender, Qualification, Caste, Trainee category, etc.
- Create your own password

Click Submit to complete your registration.

3

Step 3: Login to Portal

Use your registered Email ID and created Password to log in. If you forget your password, click "Forgot Password" – the new password will be sent to your registered email.

4

Step 4: Apply for a Program

After login, click on "Apply for Program"
Browse the list of available trainings.
Select your desired training program.

5

Step 5: Pay the Training Fee

Make an online payment of ₹5900 to the below account:
A/C Name: ICAR (CIFE Sub Unit), Kolkata
A/C No.: 10224931725
Bank: State Bank of India
Branch: Salt Lake Electronic Complex
IFSC Code: SBIN0009985
Type: Current Account
Save the payment receipt (PDF).

6

Step 6: Upload Receipt & Complete Application

Attach the payment receipt in the pdf form.
Fill in all remaining required fields.
Review your application details.
Finally, submit the application.

Note: In case of any kind of query related to online application, you may contact at shivaji@cife.edu.in (Dr. Shivaji- 7894252006)

COURSE TEAM AND CORRESPONDENCE

Contact the organizing team at ICAR-CIFE, Kolkata Centre

COURSE LEADER

Dr. N. P. Sahu

Director

ICAR-CIFE, Mumbai

COURSE DIRECTOR

Dr. T. K. Ghoshal

Principal Scientist & Head

ICAR-CIFE, Kolkata Centre

COURSE CO-DIRECTORS

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