

Accommodation and Travelling Allowances

Expenses on boarding and lodging arrangements for selected participants will be borne by organizers as per ICAR guidelines. The expenditure on travel by the participants from SAU's and other ICAR institutions will be paid as per their entitlement for the clause of travel restricted to the maximum of AC II tier fare by the shortest route subjected to availability of funds. Participants are required to produce the original tickets in support of their claim. Local candidates will receive no boarding, lodging or trans portation facilities as per ICAR rules in the program in order to compensate for non-local candidates. Accommodation and food will be provided on economy level. As regards accommodation, details will be sent to the selected candidates

About Kochi

ICAR- Central Marine Fisheries Research Institute is a premier organization carrying out research activities in prioritized areas like marine fishery resource management, marine biodiversity, mariculture and marine biotechnology. The institute over the course of 75 years of active research and extension has emerged as one of the leading marine fisheries research institutes in the world addressing the concerns of tropical marine fishery. Marine Biotechnology Division of CMFRI caters to the needs with respect to applications of biotechnological tools towards fishery resource management and mariculture. Research on fish genetics, molecular taxonomy, population genomics, functional genomics, fish nutrition, nutrigenomics, fish pathology, microbiology and bioprospecting is being carried out by the division on a priority basis.

Contact address

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Application must send to:

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Course Coordinators

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Winter School on  
Genetic and Genomics tools for Sustainable  
Aquaculture and Fisheries Management  
(15<sup>th</sup> January to 04<sup>th</sup> February 2025)

Application Form

Full name (in Block letters):.....  
Designation:.....  
Present employer & Address:.....  
.....  
.....

Basic Pay:.....  
Address for communication.....  
.....  
.....

E-mail Address:.....  
Mobile No: ..... Date of Birth:.....  
Sex (Male/Female):.....

Teaching/ Research/ Professional experience  
(Mention posts held during last 5 years and number of publications):  
.....

Mention if you have participated in any Training Programme, Seminar/ Summer/Winter  
School, Short Course, etc. during the previous years under ICAR/ Other organizations:  
.....

Demand Draft drawn in favour of ICAR Unit-CMFRI  
(No.: .....Dated:.....)  
For Rs. 50/- (Non Refundable) as registration fee, Payable at Ernakulam

Examination passed	Subjects main/ Subsidiary	Year	Division	University/ Institution
Degree				
Post Graduate				
Doctoral				
Others				

Date: (Signature of the Applicant)  
Place:

Countersigned  
Sponsoring Authority (Director/ Dean/ Head of Regional Station, etc.

ANNOUNCEMENT OF  
ICAR WINTER SCHOOL ON

Genetic and Genomics  
tools for Sustainable  
Aquaculture and  
Fisheries Management

15 January to 04 February 2025

Sponsored By

INDIAN COUNCIL OF AGRICULTURAL RESEARCH  
New Delhi



ICAR-Central Marine Fisheries Research Institute

Ernakulam North P.O., Kochi-682 018  
Kerala, India





## About ICAR-CMFRI

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## About the Winter School

The fitness and survival of diverse organisms in a particular environment are dependent on the unique biological attributes of a species. The inherent genetic variation within species and populations provides the necessary impetus to thrive in the presence of dynamic environmental forces. Understanding the genetic and morphological diversity is the key to ensuring the sustainability of ocean resources, identifying adaptive evolution patterns and managing ocean resources. Sustainable fisheries management requires the identification of fish species accurately to preserve the biological complexity. Identification of stock structure is essential to devise management strategies specific to the stocks. Recent advances in molecular tools have enabled unambiguous identification and stock structure delineation enabling conservationists to plan management and conservation actions. This course aims to provide the knowledge of various techniques for sustainable fisheries management. Details of techniques covered throughout the course are detailed below.

- Molecular tools for marine biodiversity characterization - barcoding
- Molecular tools for stock identification in fisheries – population genetics
- Functional genomics in fisheries and mariculture
- Population genomics in fisheries
- Metagenomic tools for fish health management marine exploration.
- Nutrigenomic methods.
- Metabarcoding – Environmental DNA based estimation of marine fish stocks
- Software packages used in genetics and genomics – demonstration- Hands on exercise
- Next Generation Sequencing
- Transcriptomics

## Eligibility

- Scientists and faculty members of ICAR and SAUs not below the rank of Assistant Professor or Scientist or an equivalent rank
- The number of participants will be limited to 25.
- The selection of participants will be based on eligibility criteria and is entirely a matter of discretion of the competent authority
- A formal letter of confirmation of selection will be sent via email to the selected participants within one week of the last day of application.

## Important Dates

**Last Date for receipt of application : 1<sup>st</sup> January, 2025**

**Intimation to selected applicants : 3<sup>rd</sup> January, 2025**

**Confirmation by the applicants : 6<sup>th</sup> January, 2025**

## Duration

Twenty one days (15<sup>th</sup> January 2025 – 4<sup>th</sup> February 2025)

Participants may arrive by the evening of 14<sup>th</sup> January 2025 and leave CMFRI after 5:00 PM on 4<sup>th</sup> February 2025.

## Travel

Kochi is well connected by air, road and rail. ICAR, CMFRI is located near Ernakulam High Court.

## Travelling Allowance

Participants will be paid onward and return fare for journey performed by the shortest route by road or rail. The payment will be restricted to maximum of AC II tier train fare. Even if any participant chooses to travel by Air, the claim shall be restricted to AC II tier train fare, provided they travel by Air India and book the tickets with ICAR Code (095) and on Air India website only.

## Boarding and lodging

Lodging and boarding facilities will be provided free of cost to the participants at CMFRI guest house. Participants should not bring any family members as the accommodation is for the trainees only.

Local participants are not eligible for boarding and lodging; however, they will be provided lunch and inter-session tea. No DA will be paid by the organizers to the participants.



## How to Apply

**A. Create account on CBP Portal, if your account is not created on CBP Portal:**

1. Click on 'Create New Account' link on home page.
2. Fill the form.
3. Click on 'Create Account' button. User will get the message 'Successfully created account' after account is created on the CBP Portal.

**B. Login on CBP Portal:**

1. Enter the 'User Id' and 'Password' in the candidate login window on the home page.
2. Click on 'Login' button.

**C. Participate in training programme:**

1. After login, click on 'Participate in Training' button/menu, list of trainings will be displayed.
2. Click on 'Training Title - "Genetic and Genomics tools for sustainable Aquaculture and Fisheries Management".
3. Click on 'Apply' link.
4. A form will open with all your personal details filled in. In case, user want to change any of these information then click on 'Edit' button and do the desired changes.
5. Click on 'Save' button to save the information then click on 'Next' button.
6. Fill the 'Academic details' and 'Experience details' information. Click on 'Next' button.
7. Fill 'Draft/Postal' order for Rs. 50/- drawn in favour of ICAR unit CMFRI Kochi and click on 'Next' button.
8. Advance Application form will be generated in system and click on 'print' link. Submit this print out copy in your office for approval of competent authority. Click on 'Submit' button, advance copy will be submitted to course director.
9. After approval from competent authority, upload the scanned copy of duly approved application form and click on 'Next' button.
10. Click on 'Upload Approved Application File' button to upload signed 'Advance Application form' (Approved Application Form) in pdf/ doc/ jpg/ jpeg/ docx and click on 'Submit' button for final submission.