

# TRAINING CUM WORKSHOP ON APPLICATION OF DRONE AND SENSOR TECHNOLOGIES IN FISHERIES

**March 24-25, 2025**

**Patron**

**Dr. Ravishankar C.N., Director**  
ICAR-CIFE, Mumbai

**Dr. N. P. Sahu, Joint Director**  
ICAR-CIFE, Mumbai

**Course Directors:**

**Dr. B. B. Nayak**  
Head and Principal Scientist,  
FRHPM Division  
ICAR-CIFE, Mumbai  
Email: nayakbb@cife.edu.in

**Dr. Rabi N. Sahoo**

Principal Scientist and Program Leader, ICAR-NePPA,  
Division of Agricultural Physics,  
ICAR-IARI, New Delhi  
Email: rabi.sahoo@icar.gov.in

**Course Coordinators:**

**Dr. Layana P.**  
Scientist,  
FRHPM Division  
ICAR-CIFE, Mumbai

**Dr. Rajib Ranjan**  
Senior Scientist,  
Division of Agricultural Physics,  
ICAR-IARI, New Delhi

**Dr. Karankumar Ramteke**  
Scientist,  
FRHPM Division  
ICAR-CIFE, Mumbai

**Mr. Abuthagir Ibrahlim S.**  
Scientist,  
FRHPM Division  
ICAR-CIFE, Mumbai



**Collaborator - Professional Fisheries Graduates Forum**

## ABOUT TRAINING PROGRAM

In recent times, automation technologies embedded with IoT, sensors, UAVs (Unmanned Aerial Vehicles), data science, and artificial intelligence (AI) have emerged as game-changers for modernizing the fisheries sector. These technologies are crucial in addressing challenges such as climate change, marine pollution, overfishing, habitat degradation, and declining fish stocks.

UAVs (drones) have proven to be an effective tool for monitoring and managing aquatic environments with enhanced precision and efficiency. Drones equipped with high-resolution cameras, sensors, and GPS technology provide real-time data on fish stock assessment, habitat mapping, water quality monitoring, and aquaculture farm management. This data can be analyzed to detect changes in water conditions, algal blooms, fish health issues, and habitat destruction, allowing for timely interventions and sustainable resource management.

UAV technology is also effective in resolving spatial data gaps by generating near-real-time, high-resolution, spatially explicit information on water quality for fisheries resource management. Drones can be utilized for various manual operations such as aerial inspections, underwater surveys, aquaculture monitoring, feed inputs, transport, and surveillance. Additionally, UAVs assist in yield prediction and fisheries resource assessment, which helps optimize resource use and improve overall productivity.

Advanced imaging technologies like hyperspectral and multispectral sensors mounted on UAVs are revolutionizing fisheries research and management. These sensors capture data across multiple wavelengths, providing insights into:

- Water Quality Monitoring
- Fish Stock Assessment
- Habitat Mapping
- Disease Detection in Aquaculture
- Post catch Fish Quality

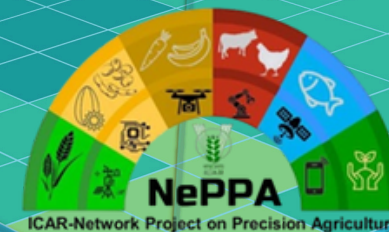
By leveraging hyperspectral and multispectral imaging, fisheries researchers and managers can achieve greater accuracy in decision-making, sustainable resource utilization, and effective conservation strategies. This workshop will provide exposure and understanding of application of drones and hyperspectral sensors in Agriculture and allied sectors with potential fisheries application

The training is being organised by ICAR-CIFE and ICAR-IARI



# TRAINING CUM WORKSHOP ON APPLICATION OF DRONE AND SENSOR TECHNOLOGIES IN FISHERIES

**March 24-25, 2025**



**भा. क. अनु. प. - केंद्रीय मात्स्यिकी शिक्षा संस्थान**  
**ICAR-Central Institute of Fisheries Education**

(An University Established Under Sec. 3 of UGC Act 1956)

Panch Marg Off Yari Road, Versova, Andheri-West, Mumbai-400061 (India). <https://www.cife.edu.in>



## REGISTRATION FORM

### Training cum Workshop on Application of Drone and Sensor Technology in Fisheries

Mode of Participation (Physical / Online):

#### Personal Details

Full Name (in Block Letters):

Designation:

Discipline:

Date of Birth:

Gender:

#### Organization Details

Name of the Organization:

Address:

#### Contact Information

Email ID:

Mobile No.:

#### Declaration by the Applicant

I hereby declare that the information furnished above is true to the best of my knowledge.

Signature of the Candidate:

#### Recommendation & Certification

The particulars given by the candidate are correct, and the nomination is recommended.

Is the applicant an ICAR employee? (Yes / No):

It is certified that the information furnished above is correct.

Signature of the Controlling Officer with Seal & Date:

[Registration Link](#)

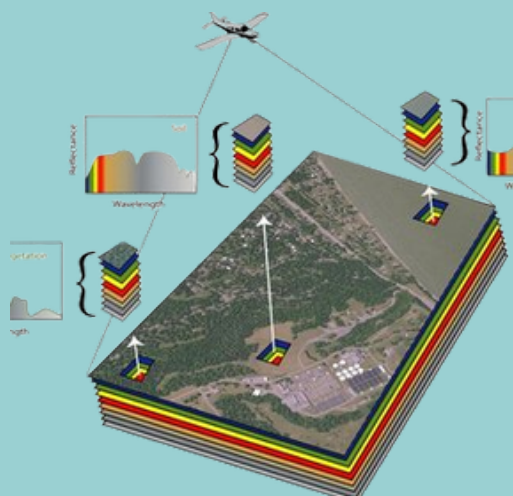
CLICK HERE

## ELIGIBILITY FOR PARTICIPATION

- This workshop is open for young and active academicians. This workshop is designed for Master's and Ph.D. students interested in the futuristic application of drone and sensor technology in fisheries.
- We also welcome Assistant Professor/ Scientist/ RA/ SRFs/ Research Scholars from SAUs, CAUs' and ICAR Institutes/ inclined to learn this specialized application particularly in fisheries and agriculture

## TOPIC TO BE COVERED (THEORY & PRACTICAL)

- Drone Technology for Agriculture and Fisheries: An Overview.
- Principles and steps involved in Drone Remote Sensing.
- Pre-processing and analysis of Drone acquired images.
- Live demonstration of drone imaging using different sensors like RGB, multispectral, and hyperspectral and drone based spraying.



Duration: 02 Days (March 24-25, 2025)

### Training Fee:

- Rs.1000+18%GST=1180 (Online participant)
- Rs.2000+18%GST=2360 (Offline participant)

Account Name: Professional Fisheries Graduates Forum,

Name of the Bank: Canara Bank  
(Account Number: 0171101075152,  
IFSC Code: CNRB00000171)

Please upload transaction details of if you are attending Online (Rupees 1180) and For offline (Rupees 2360) to the registration link given

**Travelling and Daily Allowances (TA/DA):** No TA/DA will be paid by the organizer.

It may be borne by the sponsoring institute.

**Accommodation and Food:**

**Boarding & Lodging:**

Limited accommodation is available on a payment basis at the ICAR-CIFE Guesthouse.

**Working Lunch:** Provided by the organizer.

**For Queries and Contacts**

iburahim@cife.edu.in +91-8675831338  
karankumar@cife.edu.in +91-9595738212