

## COURSE DIRECTOR

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**For Details please contact:**

**Director**

**ICAR - Research Complex for Eastern Region**

**ICAR Parisar, P. O. Bihar Vet. College,**

**Patna- 800014, Bihar, India**

For any other update log on [www.icarrcer.in](http://www.icarrcer.in)

## APPLICATION FORM

(to be sent to Director, ICAR-RCER, Patna)

1. Full name (BLOCK letters) :
2. Designation :
3. Present employer :
4. Address in BLOCK letters :  
Mobile No and .E-mail
5. Permanent address :
6. Date of birth :
7. Sex: Male/ Female :
8. Teaching/ research/ professional experience: (mention post held during the last 5 years and number of publications)
9. Marital status : (Married/Unmarried)
10. Mention if you have participated in any seminar, /Short course, etc., during the previous years under ICAR/ other organizations
11. Postal order/DD  
No..... Dated..... of Rs. 50/- for registration (in favor of  
ICAR-RCER, Patna)
12. Academic record: (Degree onwards)

Degree	Discipline	Year	University
Ph.D			
Master			
Graduation			

**Date:**

**Place:**

**Signature of the applicant**

13. Recommendation of forwarding authority:

It is certified that information furnished by the candidate has been verified and found correct

**Signature & Designation of the Sponsoring Authority**

(With address & Office seal)

## ICAR Winter School On

**"Recent Advances in Livestock - fish  
integrated farming system for rural  
livelihood and environmental  
Sustainability"**

**4<sup>th</sup> - 24<sup>th</sup> February, 2020**



**Sponsored by**  
**Education Division**  
Indian Council of Agricultural Research  
New Delhi -110012



**Division of Livestock and Fisheries Management**  
**ICAR Research Complex for Eastern Region**  
**ICAR Parisar, P.O Bihar Veterinary College**  
**Patna-800014 (Bihar)**



## Background

Animal husbandry, dairy and fisheries activities, along with agriculture play an important role in providing food & nutrition security, employment and livelihood of millions of people of Eastern Region (ER). ER is bestowed with enormous livestock and aquatic resources. Total livestock and poultry population of ER during 2016-17 were 156.8 million and poultry 155.0 million contributing around 30.6% and 21.2% of total population of India respectively. ER also blessed with rich aquatic resources and contributing around 33.9% of the total fish production of India. Because of its strategic importance and necessity to cope up with rapid development of both these sectors, integrated mode of food production can play important role in increasing employment opportunities and income of rural populations. Integrated fish farming (IFS) is a diversified and coordinated method of farming system, where agriculture and animal husbandry are integrated along with fish farming. The main objective of this system of farming is that, wastes or by-products generated from each sub-system are used as inputs to other sub-systems to improve the productivity and to reduce the cost of production of the outputs of the various sub-systems. Integrated fish culture with livestock or cash crops holds a considerable potential for augmenting production of animal protein and generation of employment opportunities in the rural areas. In the present course recent advance techniques related to integrated fish farming shall be discussed for refreshing and updating the knowledge of faculty/scientists of SAUs, CAUs, ICAR Institutions and KVKs.

## Eligibility

Participants should have Master Degree in Agriculture/ M.V.Sc/M.F.Sc and allied disciplines. Participants should be from ICAR Institutes/State AUs/CAU/ Agricultural faculty of AMU, BHU, Vishwa Bharti and Nagaland University in the cadre of Scientist/Assistant Professors/SMS or equivalent and above who have at least two years of teaching, research and extension experiences.. Competent authority of the above mentioned institutes can nominate 2-3 persons for attending the training programme. A total of 25 participants will be accommodated in this course.

## Travel allowance

Selected participants will be getting reimbursement for to and fro travel expense as per their entitlement, restricted to the maximum of AC II Tier fare by the shortest route, upon production of original tickets.

## Accommodation

Institute is having guest house where few rooms and well-furnished dormitories are available. Free lodging and boarding arrangements will be made for the participants in the guest house

## Course Contents

The course contents include lectures, hands-on practical and field visits on important topics. Few are listed below:

- Principle and status of integrated fish farming in India
- Nutrient recycling and management in integrated farming system
- Scientific strategies for feeding and water quality management in IFS
- Water productivity in IFFS
- Animal waste requirement in integrated farming system
- Water quality management in IFFS
- Effective utilization of floodplains (chaurs) through integration of fish with rice, duck and azolla
- Makhana based integrated farming systems
- Economic viability of livestock cum fish integrated farming system
- Stress management, defense mechanism and disease management in integrated fish farming

## Field trips and exposure visits

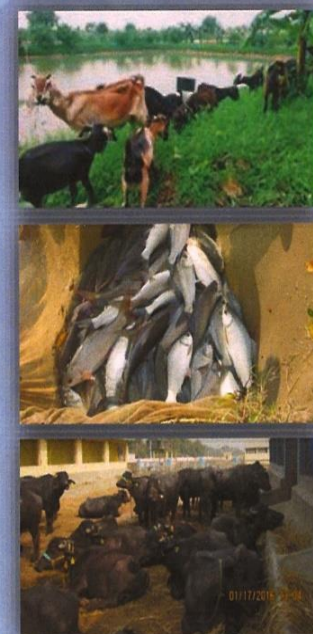
Field trips/ exposure visits will be made to important integrated fish farming sites located at Bihar

## Host Institute

Eastern region is endowed with rich natural resources; however, productivity of ER is low compared to many other states of India. There is a large gap between potential and productivity of major crops, horticulture, fisheries etc. Keeping in view the potential of the region, the ICAR Research Complex for Eastern Region (ICAR-RCER) was established in 2001 to address diverse issues relating to land and water

resources management, crop husbandry, horticulture, agro-forestry, livestock, fisheries and poultry, agro-processing and socio-economic aspects in a holistic manner for enhancing the productivity, sustainability and livelihood status for the poor and under privileged farmers of the Eastern region. ICAR-RCER is a multi-commodity and multidisciplinary institute designed to address multiple, complex factors affecting the agricultural production in the region.

During the last one and half decade, institute has conducted research in different Agriculture and allied subjects through institutional and externally funded projects. During these period many farmers friendly technologies and varieties have been developed. Apart from the main institute headquarter located at Patna, it has regional stations at Darbhanga, Bihar and Ranchi, Jharkhand and two KVKs at Buxar, Bihar and Ramgarh, Jharkhand.



## Patna city

Patna is the capital and largest city of the state of Bihar with an estimated population of 1.68 million. The city of Patna is well communicated through bus, train and air. Weather during the programme will be pleasant expected to be within 20-33°C.

## How to apply

Application in prescribed format may be sent to the Course Director after approval from competent authority. The complete list of selected participants will be available in ICAR-RCER website [www.icarrcer.in](http://www.icarrcer.in) In case of any query please contact Course Director or Co-Directors.

## How to reach

Institute is located near Bihar Veterinary College (1 km) and Jaiprakash Narayan International Airport (2 km). It is around 8 km from Patna Junction and 0.5 km from Phulwari jail. Prepaid auto /