Application Form
for Participation in ICAR sponsored Winter School 2026

"Next-Generation Nutrition and Reproductive technologies for Augmenting Fertility and Production in Livestock"

7th January 2026 - 27th January 2026

ICAR-National Institute Of Animal Nutrition And Physiology, Adugodi, Bengaluru - 560030

1. Full Name (in block letter) :
2. Designation :
3. Present employer and address :

4. Corresponding address :

Fax:

E-mail:

Mobile:

5. Date of birth:
6. Sex: Male/Female
7. Work experience and publications (last 5 yrs)
8. Educational qualifications:

Name of the degree	University	Year	Major subjects

9. Mention if you have participated in any summer/winter/short course under ICAR/other organizations

10. Demand Draft No---------- dated ---------- in favour of "ICAR UNIT, NIANP", payable at Bangalore for registration of application

Date:

Signature of the applicant

Place:

Recommendation of the forwarding department

Certificate

Certified that the information furnished by the applicant was verified with the office records and found to be correct and he is been nominated for the above course.

Signature
Designation
Address

Contacts for further information

Course Director

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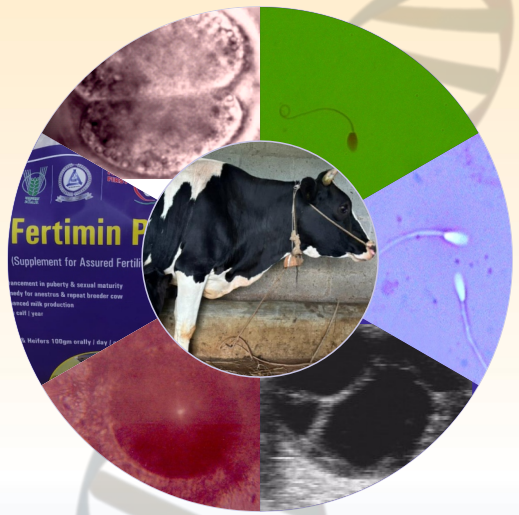
Patron
Dr. Artabandhu Sahoo
Director, ICAR-NIANP Bengaluru

Sardar Patel Outstanding ICAR Institution Award 2012 & 2022

ICAR Sponsored Winter School on

Next-Generation Nutrition and Reproductive technologies for Augmenting Fertility and Production in Livestock

7th -27th January 2026



Course Director
Dr. A.Arangasamy

Co- Course Director
Dr. S. Anandan
Dr. D. T. Pal
Dr. S. Selvaraju

ISO 9001-2008

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Fax : 91-80-25711420. Website: http://www.nianp.res.in

Background

Nutrition plays a major role in production and reproduction of livestock. Scientific feeding of livestock utilizing the available feed resources can bring about major impact on productivity of livestock. India is number one in milk production and maintain the same for more than two decades. This is possible due to more number of cattle population rather than production capacity of individual animal. Therefore, it is evident to augment reproductive production and reproductive efficiency in dairy cattle is warranted to meet out the increasing population of our country. This is made possible by the development of advanced technologies such as whole genome sequencing, RNAi technology, gene therapy, nanotechnology, stem cell technology, gene transfer and cloning, nutritional epigenomics etc., These newer technologies coupled with old techniques such as AI, cryopreservation of gametes, embryo transfer and in vitro production of embryos have opened the realm of well organized systems for wide scale production, sale and transfer of genetically superior animals. The enhancement of production and reproduction under climate change scenario is also important for sustainable livestock sector. There is also need to use the alternative feed and fodder to over come the existing feed scarcity condition. Keeping this in view, this Winter School is designed to cater to the needs of teachers /researchers in ICAR / Agriculture / Veterinary Universities and Krishi Vigyana Kendra's (KVK).

Course content

- Feed and fodder, balanced /precision feeding for augmenting fertility and milk production in dairy cattle
- Types, forms and ch-elated minerals for optimum nutrient delivery for enhancing productivity
- Nanotechnology for improving animal production under climate change scenario
- Recent advanced technologies in physiology and reproduction
- Basic and molecular aspects of semen analysis and preservation in livestock
- In vitro embryo production and Embryo transfer technology status at field
- Sexed semen usage at field/Skewing sex ratio in dairy cattle
- Impact of climate change on fertility & amelioration strategies, factors affecting conception rate in cows
- Gene silencing for improving livestock productivity under changing climate
- Climate change impact on embryo development and uterine function
- Transgenic livestock production & Stem cell and gene therapy
- Climate change and methane might have serious impact on fertility
- Corban cycle analysis

Practicals

- Assay of hormones – RIA & ELISA
- Micronutrient analysis using AAS/ICP
- Proximate analysis of feed
- Rumen fluid collection and analysis
- Semen analysis basic and molecular approach
- CASA, Flow cytometry -know how on sperm analysis
- Ultrasonography, IVM, IVF and in vitro embryo production
- Cell culture, Characterization of stem cells
- Bioinformatic analysis of sequences and primer designing
- PCR technique and Quantitative PCR (qPCR)
- Protein characterization (SDS-PAGE & 2-D gel electrophoresis)
- Next Generation Sequencing (NGS) Data analysis
- Controlled temperature studies on Climate chambur

Duration

The course duration is 21 days from January, 7-27, 2026. Outstation participants are requested to arrive latest by the evening of 6th January and can leave after 18.00 hrs on 27th January, 2026.

Eligibility

Participation is restricted to Scientists/ Assistant professors/Lecturer/Associate professors/Professors of ICAR institutes/State Agricultural/Veterinary universities/KVKs in the discipline of Animal or Veterinary Physiology/ Animal Nutrition/ Animal Reproduction/ Veterinary Gynaecology and Obstetrics/ Livestock Production and Management/ Animal Biochemistry/ Animal Biotechnology / Poultry Science. The total number of participants is restricted to 25. There is no course fee charged for the participants. The last date of receipt of nomination is 15th December, 2025. The selected candidate will be intimated on or before 17th December, 2025 either by fax/speed post/Email/Mobile, who in turn have to confirm their participation by 25th December, 2025. Participants must start their journey only after confirmation from ICAR-NIANP.

TA & DA

Participants will be paid travel fare to and fro journey by train (II AC)/ deluxe bus of Gov recognized by shortest route on submission of tickets as per ICAR rules. Participants are requested to make their own arrangements for to and fro travel arrangements.

Boarding and Lodging

Free boarding and lodging facilities will be provided to the outstation participants as per rules of ICAR's norms and guidelines of Winter school. Local participants will be provided only lunch, session tea and course materials as per ICAR norms. **Participants are requested strictly not to bring their family as we have limited guest house facility.**

How to reach

The campus is 8 Km from city railway / bus Station, 15 km from Yeswantpur railway station. Pre-paid taxi/auto can be availed at Bengaluru railway/airport/bus stations to reach NIANP, Adugodi, (opposite to MICO factory service gate, Hosur Main Road).

Weather

Bangalore will be quite comfortable in the month of January (14^0 to 28^0C) and light woolen clothing is required.

Application

Candidates must apply via email on personal communication to the following given mail id below:

1. Visit website http://www.http://nianp.res.in
2. Download form, print and sign and get themselves nominated through proper channel and send scanned nomination form by email to winternianp2025@gmail.com on or before 15.12.2025 and also send the hard copy to alongwith non-refundable registration fee of Rs. 50/- in the form of Demand Draft drawn in favour of ICAR unit, NIANP. The application in the format enclosed should also be submitted through proper channel to reach Dr. A. Arangasamy, Principal Scientist and Course Director, National Institute of Animal Nutrition and Physiology, Hosur Road, Adugodi, Bengaluru- 560 030 on or before 15.12.2025. An advance scanned copy with signature of Head of the Organization should also be sent through email (winternianp2025@gmail.com). The selected candidates will be intimated by 17.12.2025. Selected candidate should confirm their participation by 25.12.2025 by email.