

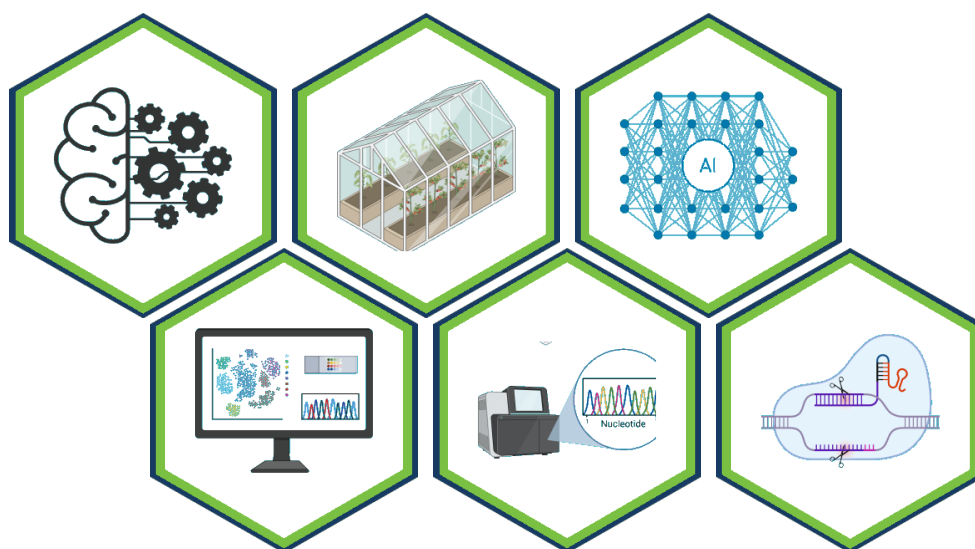


INDIAN COUNCIL OF AGRICULTURAL RESEARCH
NEW DELHI

ICAR SPONSORED • 21-DAYS WINTER SCHOOL

Driving Pulse Improvement in the Digital Age: Genomics, AI and Breeding 4.0

21 JAN – 10 FEB 2027



25 Seats • Last date: 15 December 2026

Organized by
Crop Improvement Division, ICAR-IIPR, Kanpur

- Course Director: Dr. G.P. Dixit
- Course Coordinators: Dr. A.K. Parihar, Dr. A. Bohra
- Course Co-coordinators: Dr. J. Kumar, Dr. P.K. Katiyar

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Sponsored by Indian Council of Agricultural Research (ICAR), New Delhi

About the Winter School & Focus Areas

21 Days | 21 Jan – 10 Feb 2027 | ICAR–IIPR, Kanpur

About the Programme

Pulses are central to India's nutritional security, soil health and sustainable agriculture. Rapid advances in genomics, artificial intelligence, multi-omics and precision phenotyping are transforming plant breeding into Breeding 4.0. This 21-day Winter School equips mid-career scientists and faculty with cutting-edge knowledge and hands-on skills in next-generation sequencing, pangenomics, genomic selection, gene editing, AI/ML applications, speed breeding and digital tools for accelerated genetic gain in pulse crops.

The Winter School will focus on

Next-Generation Sequencing and Advanced Genomic Data Analytics

Pangenomics and Haplotype-Based Approaches for Pulse Improvement

Multi-Omics Integration and Gene Discovery for Trait Improvement

Plant Phenotyping for Precision Breeding

Genomic Selection and Genome-Wide Prediction for Accelerating Genetic Gain

Artificial Intelligence and Machine Learning for Pulse Crop Improvement

Gene Editing Technologies for Precision Improvement of Pulse Crops

Harnessing Genebank Diversity for Sustainable Pulse Improvement

Farm Mechanization, Robotics and AI for Sustainable Pulse Production

Speed Breeding and Rapid Generation Advancement in Pulse Crops

Innovations in Quality Seed Production and Seed Systems

Advanced Experimental Designs, Statistical Methods and Data Analytics

KEY HIGHLIGHTS

- Hands-on training in NGS, AI/ML pipelines & genomic selection models
- Exposure to gene editing, speed breeding & phenotyping platforms
- Expert interaction • Field & lab visits • Certificate on completion

Eligibility, Logistics & How to Apply

Eligibility

Master's Degree in any branch of Agricultural Sciences. Applicant should not be below the rank of Assistant Professor / Scientist and equivalent, and should be working in Colleges / Universities / Agricultural Universities / KVKs / ICAR Institutes.

DURATION

21 Days

21 Jan – 10 Feb 2027

PARTICIPANTS

25 Seats

Limited enrolment

LAST DATE

15 Dec 2026

Application deadline

INTIMATION

20 Dec 2026

To selected candidates

Travel, Boarding & Lodging

TA will be paid to and fro as per entitlement, restricted to AC II tier rail fare by shortest route (produce tickets). Air tickets only via IRCTC / Balmer Lawrie / Ashoka Travels. Free shared accommodation in Institute Guest House. Working lunch, tea & refreshments provided. Local participants not eligible for boarding/lodging.

Registration Fee: ₹ 50 (Non-refundable)

Pay online via UPI by scanning the QR code

UPI ID: iiprkanpur@sbi

Payee: ICAR Unit, IIPR Kanpur



How to Apply

- 1 Obtain & fill the prescribed application form completely.
- 2 Attach updated CV. Get it forwarded by competent authority.
- 3 Pay the ₹50 fee via UPI (scan QR above). Send hard copy + CV + UPI transaction ID or payment screenshot by post before last date.
- 4 Also email soft copy (scanned PDF) to Course Director / Coordinators.
- 5 Selected candidates will be informed.

About the Institute, Host City & Contacts

Mandate

- Basic and strategic research on pulses to improve productivity and quality.
- Provide equitable access to information, knowledge and genetic material to develop improved technology and enhanced pulse production.
- Planning, coordination and monitoring of applied research on national and regional issues through All India Coordinated Research Project.
- Dissemination of technology and capacity building.

About Kanpur

Kanpur is a major metropolitan city in Uttar Pradesh on the banks of the Ganges. Kanpur has a rich industrial heritage and excellent rail, road and air connectivity. ICAR–IIPR is on the Grand Trunk Road, about 12 km from Kanpur Central Railway Station towards New Delhi. Climate is semi-arid to sub-humid (rainfall 800–1000 mm). The institute offers a serene academic environment ideal for focused scientific learning.

From mid-January to early February, Kanpur experiences significant cold. Days remain cool, while mornings and nights can be quite chilly, with temperatures often dropping further. Warm woollens are strongly recommended.

Course Director

Dr. G.P. Dixit, Director

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Course Coordinators

Dr. Ashok Kumar Parihar

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Dr. Abhishek Bohra

Sr. Scientist

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Course Co-coordinators

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Dr. P.K. Katiyar

PS & Head

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Application Form for Participation in Winter School

ICAR sponsored 21-days Winter School | 21 Jan – 10 Feb 2027

(To be sent directly to the Course Director)

Driving Pulse Improvement in the Digital Age: Genomics, AI and Breeding 4.0

1. Name in full (Block Letters)

2. Designation

3. Present Employer and Address

4. Address for Correspondence

5. Tel No. (O) _____ (Mob.) _____

6. Email

7. Date of Birth and Age

8. Sex _____ 9. Marital Status: Married / Unmarried

10. Teaching / Research / Professional Experience (posts held last 5 years)

11. Number and list of Publications in the relevant area

12. Academic Record

Examination	Subject	Year	Institution / University	OGPA / %
Bachelor's Degree				
Master's Degree				
Ph.D.				
Other Certificates				

13. Previous Summer / Winter Schools / Short Courses (last 5 years):

14. UPI Transaction ID _____ Date _____ for ₹ 50/- (non-refundable)

Signature of the Applicant

Recommendations of the Forwarding Institute

Dr./Shri./Ms. _____ is hereby nominated for participation in the 21-days Winter School at ICAR-IIPR, Kanpur during 21st January to 10th February, 2027.

Signature, Designation & Address

Certificate

It is certified that the information furnished is as per office records and found correct.

Signature, Designation, Address & Office Seal of the Sponsoring Authority