

# Hands-on Training on DNA isolation and PCR techniques in Plant Biotechnology (3-4 December 2021)



ICAR-Central Agroforestry Research Institute  
(ISO 9001 : 2015 Certified Constituent Lab of ICAR)  
Jhansi-284003, Uttar Pradesh

## About CAFRI

ICAR-Central Agroforestry Research Institute (ICAR-CAFRI), also known as "KRISHIVANIKI", is a multidisciplinary premier research institute of the Indian Council of Agricultural Research (ICAR) with a major focus on integrating trees, crops and livestock on the same farmland. The Institute is located in Jhansi, Uttar Pradesh, India and has a total area of 254.859 acre (214.079 research farm and 40.78 office & residential area). The Institute is located about 10 kms from Jhansi Railway and Bus Stations towards Gwalior.



Facilities available at Tree Improvement Research Laboratory CAFRI

- Real-Time PCR (qRT-PCR)
- PCR
- Ultra Centrifuge
- UV-Spectrophotometer
- Deep freezer (-80°C)
- UV-Transilluminator



## Registration Form

Name :

Degree :

Specialization :

Date of birth :

Name of the institution/college/ University :

Contact number :

E-mail address :

Permanent address :

Signature of the applicant

For more information:

Please visit <http://cafri.res.in> or write to

Course Coordinator:

Dr. K Rajarajan

Scientist

ICAR-CAFRI, Jhansi-284003

Email: [Rajarajan.K@icar.gov.in](mailto:Rajarajan.K@icar.gov.in)

### About the Course:

Biotechnological and molecular tools have become important towards diagnosis and screening of diseases and its management. These involve high-end sophisticated instrumentation that requires skill-based training for handling the equipment's. For instance, nucleic acid isolation (DNA & RNA) and Polymerase Chain Reaction (PCR) technology have proven to be the accurate diagnostic tool in healthcare. With the innovations in PCR based technology, its applications in the field of genetics and genomics has growing manifold. This program is specially designed for university/college students. The hands-on training delivers practical experience to various techniques to the student participants and provides knowledge about basics of molecular technologies for advancement in plant biotechnology in particular.

### Course Content:

- Introduction to Good Laboratory Practices
- Introduction to instruments for molecular biology
- Introduction to various reagents and its preparation for molecular biology
- Fundamentals of nucleic acids (DNA & RNA)
- DNA isolation methods
- DNA quantification and purity analysis
- Principles of polymerase chain reaction (PCR)
- PCR amplification and its analysis
- Gel electrophoresis

### Target group:

Students pursuing Under-graduate, Post-graduate in Life Sciences, Agriculture, Biotechnology, Forestry etc.

Venue: ICAR-Central Agroforestry Research Institute, Jhansi, Uttar Pradesh

Number of seats: 25

Duration: 3-4 December, 2021 (2 Days)

### Course fee:

Rs. 500/- per candidate for days scholar, and Rs. 1000/- (for accommodation and working food etc.). Fee can be pay through the QR code



### Course Registration:

All participants have to submit the form and/or register on-line through registration page provided at CAFRI website. The completed form may be sent to [Rajarajan.K@icar.gov.in](mailto:Rajarajan.K@icar.gov.in) on or before 29 November 2021.

### Certificate:

Course completion certificate will be awarded to successful trainees.

### Information to applicants

The training programme will be conducted in physical mode only by following appropriate COVID-19 guidelines. The admitted students will have to produce final vaccination certificate along with application.

