

# ICAR-IISR Summer Internship Programme-2025 Advanced techniques in Microbiology, Biochemistry, Biotechnology and Bioinformatics

#### Overview

ICAR-Indian Institute of Spices Research, Kozhikode is offering a summer internship program on 'Advanced techniques in Microbiology, Biochemistry, Biotechnology and Bioinformatics' from 01 - 30 May 2025. This internship is designed to expose young and curious minds to scientific realms and biological processes, encouraging innovation and scientific discoveries through exploration of new ideas. This internship is a great opportunity for all those who are interested in learning and enhancing their skills in the field of Microbiology, Biochemistry, Biotechnology and Bioinformatics. The internship will cover various aspects of these fields, including advanced techniques and methods combining lectures and hands-on training.

#### Eligibility

Final year Undergraduates/Postgraduates/Post M.Sc./Ph.D. students (currently enrolled or completed) in any stream of Life Sciences.

#### **Course content**

Course will cover orientation lectures along with hands on experience on laboratory techniques such as



#### Laboratory approaches

- DNA/RNA Isolation
- Agarose Gel electrophoresis
- Plant tissue culture
- PCR and qRT-PCR
- Preparation & quantitative analysis of plant extracts
  Instrumentation and analysis by HPLC, GC-MS, LC-MS/MS
- Biochemical screening for stress tolerance
- Plant disease identification & isolation,
- characterization & inoculation etc.

## How to apply?

Interested candidates are requested to fill in the Google form for registration. The selected candidates will be intimated through email.

#### Registration link https://forms.gle/toQSjo3hUH43A1rP8

## Fee Structure

Registration fee of Rs. 11,800/-(Inclusive of 18% GST) should be paid by selected candidates.

Food and accommodation has to be arranged by the candidate as this is not included in the registration fee.

#### in silico approaches

01 - 30

May 2025

- Introduction to Bioinformatics & R
- Introduction to Linux
- Introduction to NGS data analysis
- Comparative genomics
- PCR Primer designing
- Basics of Machine learning
- Data visualisation etc.

## QR code for payment



### Important dates

- Online registration ends on: 15 April 2025
- Intimation to selected candidates on: 20 April 2025
- Last date for registration fee payment: 25 April 2025

## **Contact Us**

- **6495-2731410 (Ext 330/208/413/207)**
- summerinternshiphrdiisr@gmail.com
- <u>http://spices.res.in</u>