ICFRE-Institute of Forest Genetics and Tree Breeding
Coimbatore-641 002

SUMMER INTERNSHIP

in Biological Sciences for the college students 2026

About the internship

To gain insights into the world of cutting-edge biology by delving into core areas of the biological sciences through in-depth modules involving real-world lab experience, mentorship from Scientists and expert faculty, hands on. Deepen and widen horizons, understanding and practical expertise in advanced biological techniques through intensive (15/21 days) internship programs.

Eligibility Criteria

- **B.Sc.,/M.Sc.,/B.Tech students in Biological Sciences or related fields**
- **Passion for scientific research and innovation**

COURSE FEE

Rs. 3000 (15 days program)
Rs. 4500 (21 days program)

Application Deadline

26th April, 2026 prospective interns to file their application by email to ifgtbstudentcoordinator@gmail.com

For more Details
Contact

Dr. A. Balasubramanian
Scientist - B and Student Programme Coordinator
Phone: 0422-2484124 /+ 91-8870624630 | Website: https://ifgtb.icfre.gov.in/

Module 1: Plant identification, Herbarium Preparation and Plant diversity Analysis [PHPPA] (01-12 June, 2026)

Co-ordinators: Dr. A. Rajasekaran and Shri Mohammad Ali Noushad

Principles of Angiosperm Plant Taxonomy, different system of Classification, Plant Nomenclature, Key features of different flowering plant families, Identification in field and in Herbarium. Collecting, pressing, drying, mounting, and labelling plant specimens for preservation, Using statistical methods to quantify plant diversity, such as *Shannon-Wiener* and *Simpson's* indices.

Module 2: Advanced Instrumentation Techniques for Plant and Soil analysis [AITPS](16-30 June, 2026)

Co-ordinators: Dr. A.C. Surya Prabha and Smt. R. Sumathi

Lab safety practices and protocols, Preparation of solutions and buffers, Spectrophotometry for quantifying sugars, proteins, and nucleic acids, TLC, gel electrophoresis, DNA extraction, PCR, Enzyme activity assays, Plant material collection, extraction, purification, Bioactive compound analysis using HPLC & GC-MS/MS, Molecular docking studies, Soil sampling methods, processing, and property analysis (pH, EC, OC, nutrients), Interpretation of plant and soil data. Group mini-project with data presentation and assessment.

Module 3: Genetic Resource Characterisation using Biotechnological Tools [GRCBT] (04-15 May, 2026)

Co-ordinator: Dr. D. Thangamani

DNA isolation, RAPD and SSR marker systems, and data analyses using different softwares. Handling Nanodrop, Spectrophotometer, Gel Documentation System, Electrophoresis System, Thermal Cycler.

Module 4: Plant Tissue and Organ Culture and its Applications [PTOCA](04-25 May, 2026)

Co-ordinators: Dr. Rekha Warrier and Shri D. Daniel Davidson

Laboratory practices,Media preparation, Selection of different explants and culture procedures, Hardening of the tissue culture plantlets, Protocols and procedures for managing tissue culture laboratory, Quality assurance and Control, Financial Linkages and Entrepreneurship, Clean Production & Waste Minimization, subsidies for establishment.

Module 5: Seed Testing Procedures including X-ray analysis and Statistical Analysis [STPSA] (18-29 May, 2026)

Co-ordinators: Dr. V. Sivakumar and Dr. R. Ananadalakshmi

Principles of quality seed production, collection, processing and extraction, standard seed testing procedures, image analysis and x-radiography techniques. Introduction to basics of Statistics, Data collection method, Data sheets, Data Visualization using graphs, charts, and other visual representations to understand and present data, Data verification. Biometrics of leaf and seed samples (Demonstration), Qualification of Pest infestation and root architecture (Demonstration). Measures of Central tendency and dispersion, Normal distribution and tests, Conducting T tests, Correlation and regressions.

Module 6: Vegetative Propagation, Hybridisation, Control pollination and Grafting [VPHCG] (01-12 June, 2026)

Co-ordinators: Shri R. Velumani and Shri S.M.Paulraj

Cutting collection, rooting media and hormone preparation, mist chamber setup, Coir composting, plant hardening, fertigation, pest management. Advanced topics include hybridization, pollen handling, grafting, and layering.

Module 7: Biofertiliser Production and Industrial Applications [BPIA](01-12 June, 2026)

Co-ordinator: Dr. A. Karthikeyan

Application of biofertilizers and biocontrol agents in forestry, focusing on their types, uses, and benefits. Mass production and application of bio-fertilizers - *Arbuscular mycorrhizal* fungi, *Rhizobium*, *Azospirillum*, *Azotobacter*, *Phosphobacterium*, and Potassium-solubilizing bacteria. Production of *Trichoderma viride* from organic waste, isolation and culturing microbes, develop carrier-based products.

IMPORTANT NOTE

- **Candidates may apply for one or more modules based on their interests.**
- **The selection of interns shall be determined solely on merit, subject to the availability of seats in the respective modules.**
- **Selected candidates will be provided with the ICFRE–IFGTB bank details for payment of the course fee. The fee must be remitted only after the selection process is completed.**
- **Food and accommodation will not be provided by the organizers; interns are advised to make their own arrangements.**
- **Certificates will be issued upon successful completion of the training programme.**

भा.वा.अ.शि.प. -वन आनुवंशिकी एवं वृक्ष प्रजनन संस्थान
ICFRE-INSTITUTE OF FOREST GENETICS & TREE BREEDING
(INDIAN COUNCIL OF FORESTRY RESEARCH & EDUCATION)
Ministry of Environment, Forest and Climate Change, Govt. of India
फॉरेस्ट केम्पस,काउली ब्राउन रोड, आर.एस.पुरम, कोयम्बत्तूर – 641002 (T.N)
Forest Campus, Cowly Brown Road, R.S. Puram, Coimbatore – 641002 (T.N)

APPLICATION FORM

Summer Internship in Biological Sciences for College Students – 2026

(*To be forwarded by the Head of the Department/ Principal)*

Name of the Applicant :

Date of Birth / Age / Gender :

Email ID :

Mobile Number :

Name & Address of the College/Institution:

Course :

Department / Specialization :

Semester / Year :

Overall Percentage / CGPA :

Module Applied :

Duration of Internship :

Previous Experience :

Areas of Interest :

Computer Skills :

Hosteller / Day Scholar :

Residential Address :

Emergency Contact Name & Number :

Declaration: I hereby declare that the above information is true.

Date Signature of the Candidate

The details provided in the application are factually correct and the application is forwarded.

Date Signature of the Head of Department / Principal