

DST-SERB (ANRF) Sponsored



Hands-on Training on Plant Physiological Techniques: Two Days Workshop for College Teachers

अनुसंधान नेशनल रिसर्च फाउंडेशन
Anusandhan National Research Foundation

2-3 June 2025

Organized by
CSIR-Institute of Himalayan Bioresource Technology
Council of Scientific and Industrial Research
Palampur (H.P.) 176061 India

About the Workshop

This workshop is being organized under the Social Scientific Responsibility scheme (SSR) of SERB (now ANRF)-Special Calls for Proposal (SCP) project under 'PAC on, 'Biology of Plants Under Extreme Environments'. Under this scheme a "Hands-on Training on Plant Physiological Techniques: Two days Workshop for College Teachers" is being organized at CSIR-IHBT. The focus of this workshop is dissemination of science and creating awareness among the teaching faculty of nearby colleges, which will help communicate research outputs to the general public. We will be giving hands on training on latest plant physiology techniques and demonstrate their potential applications in research. Our aim is to give training to college faculty (teaching undergraduate students different courses in Botany), so that they disseminate the knowledge to students to make them ready with some basic understanding of latest & advanced techniques in plant physiology and to be better prepared for their career goals, and motivating for taking up higher studies in plant sciences. We believe this workshop may also facilitate the college faculties to undertake small research projects in future, in association and with support of our Institute.

Workshop Objectives

- Quantitative insights into plant function
- Familiarity with advance research in plant physiology
- Build scientific capacity in educators
- Encourage interactions of educators and researchers for effectively teaching of concepts

Essential Qualification: M.Sc. Botany/Plant Science

Seats: 25 college faculty teaching the subject of Botany.

Workshop Includes: The workshop will include Tea/Snacks and working Lunch during the 02 days. For out-station participants, limited rooms are available in CSIR-IHBT Guest House on a nominal cost, which can be provided on sharing basis.

Please note that there is **no registration fees** and **no TA/DA** will be paid to participate in the workshop. Participation will be confirmed on the basis of Experience and Motivation Statement.

Venue: J.C. Bose Hall, Plant Eco-physiology Lab & Plant Adaptation & Stress Signalling Lab

Topics Covered

- Introduction to latest instrumentation in plant physiology research
- Field experiments & lab analysis
- Measurement of parameters such as
 - Photosynthesis & Gas Exchange (LiCOR6400 XT)
 - Chlorophyll content (Optosciences CCM300) & Fluorescence (PSI Fluoropen FP110)
 - Nutrient & elemental content (Elementar CHNS Analyzer; BWB Flame Photometer)
 - Water Potential System (PMS 1505D) for plant water status
 - Spectrometry & biochemical assays
 - Temperature, moisture & light perception
- Freezing tolerance determination
- Thermal Imaging (FLIR 650SC)
- Microscopy (Confocal & Fluorescence)
- qPCR for gene expression analysis etc.

The shortlisted candidates will be informed about their selection through email on or before 26 May, 2025.

Registration Link:

https://docs.google.com/forms/d/e/1FAIpQLSf1RUZjoZR_V7Quegu-uQLxlvSanRkN_Nb6760LEm5tJl9jFg/viewform?usp=header

23 May, 2025

Last Date of Registration

Organizing Committee

Patron
Dr. Sudesh Kumar Yadav
Director

Organiser
Dr. Amit Chawla
Principal Scientist

Co-organiser
Dr. Vivek Dogra
Senior Scientist



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