

Research Activities of Department of Botanical & Environmental Sciences

- Year of establishment: 1990
- Faculty Strength: 8
- No. of Ph.D. Research Scholars: 50
- Botanical Garden (10 hectares) financially supported by Ministry of Environment, Forests & Climate Change under Assistance to Botanic Gardens Scheme.

Recognized by:

- (i) Department of Science & Technology (DST), Govt. of India under DST-FIST (Level-1) [90 lakh]
- (ii) University Grants Commission (UGC), New Delhi under DRS-1 [1.07crore]

Thrust areas of Botany: Ecology and Ecophysiology, Phytoremediation, Plant Growth Regulation, Genetics & Environmental Toxicology, Cancer Chemoprevention, Plant Systematics, Bioactivities of Medicinal Plants, Plant Tissue Culture, Biodiversity, Natural Plant Products, Plant Databases etc.

Thrust area of Environmental Sciences: Water, Air & Soil Pollution Monitoring, Bioremediation, Environmental Toxicology, Industrial Wastewater Management, Solid Waste Management, Vermitechnology, Wastewater Treatment, Computer Applications in Ecology, Environmental mutagenesis.

Major Equipments:

1. Amino acid analyzer
2. Antioxidant analyzer
3. Atomic Absorption Spectrophotometer
4. Bio-safety Hood
5. CO₂ Incubator
6. Flame photometer
7. Fluorescent microscopes
8. FTIR
9. Gas Chromatography
10. Gel Documentation System
11. High Volume Sampler (PM10,PM2.5)
12. Inductively Coupled Plasma - Mass Spectroscopy (ICP-MS)
13. Infra Red Gas analyzer (IRGA)
14. Ion Chromatography
15. Laminar Air Flow Hood
16. Microwave Plasma Atomic Emission Spectrophotometer (MP-AES)
17. Multimode Micro plate reader
18. Preparatory-High Performance Liquid Chromatography (Prep-HPLC)
19. Thermocycler
20. Ultra High Performance Liquid Chromatography (UHPLC)
21. UV-Vis Spectrophotometer

(S. No. 1, 2, 3, 12,14,16,18, 20 are part of Central Facility)

Collaborations:

International:

1. Columbia University, New York, USA
2. University of Wisconsin, Madison, USA

National:

3. CSIR-Institute of Himalayan Bioresource Technology (IHBT), Palampur
4. CSIR- Indian Institute of Integrative Medicine (IIIM), Jammu
5. Indian Institute of Technology, Roorkee
6. Panjab University, Chandigarh
7. Punjabi University, Patiala
8. Thapar Institute of Engineering & Technology, Patiala (Deemed to be University)
9. NEERI, Nagpur
10. Centre for Remote Sensing, Punjab Agricultural University Campus, Ludhiana
11. Kurukshetra University, Kurukshetra

Research Publications (2015-2025): 745 (as per SCOPUS database)