

Research Activities of Department of Botanical & Environmental Sciences

- Year of establishment: 1990
- Faculty Strength: 7 + 1 [Professor Reemployed]
- No. of PhD. Research Scholars: 70
- 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 [1.07 crore]

Thrust areas of Botany: Environmental mutagenesis, Chemical Ecology and Ecophysiology, Phytoremediation, Plant Growth Regulation, Genetic & Environmental Toxicology, Cancer chemoprevention, Plant Systematics, Bioactivities of Glucosinolates, Plant Tissue Culture, Biodiversity, Natural Plant Products, Vermitechnology, Plant Databases

Thrust area of Environmental Sciences: Water, Air & Soil Monitoring, Heavy Metal remediation, Electrochemical treatment, Environmental Toxicology, Industrial Wastewater Management, Solid Waste Management, Wastewater Treatment, Computer Applications in Ecology

Major Equipments:

1. Inductively coupled plasma - Mass spectroscopy (ICP-MS)
2. Atomic absorption spectrophotometer
3. Ion Chromatography
4. Antioxidant analyzer
5. Amino acid analyzer
6. Preparatory-High Performance Liquid Chromatography (Prep-HPLC)
7. Ultra High Performance Liquid Chromatography (UHPLC)
8. Gas Chromatography
9. Fluorescent microscopes
10. Multiwell plate reader
11. Infra Red Gas analyzer (IRGA)
12. Gel Documentation System
13. Bio-safety Hood
14. CO₂ Incubator
15. High Volume Sampler (PM₁₀, PM_{2.5})
16. Laminar Flow Hood
17. UV-Vis Spectrophotometer
18. Thermocycler
19. Flame photometer
20. FTIR

(S.No. 1,2,3,4,5,6,7 are as part of Centre 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 University, Patiala
9. NEERI, Nagpur
10. Centre for Remote Sensing, Punjab Agricultural University Campus, Ludhiana
11. Kurukshetra University, Kurukshetra

Research Publications (2009-2018): 572 (as per SCOPUS database)