

SCHOOL OF STUDIES IN BIOTECHNOLOGY

PT. RAVISHANKAR SHUKLA UNIVERSITY RAIPUR 492 010, Chhattisgarh, India

Phone: 0771 2263022, Fax: 0771 2262583, Email: sosinbiotechrsu@gmail.com

Website: <http://www.prsu.ac.in/UTDDepartments.aspx>

CONSULTANCY & SERVICES OFFERED

We are facilitating **Projects, Dissertations, Internships, and Hands-on-Training** for B.Tech, B.Sc., M.Sc. students, and also providing research services to **PhD** scholars as per their requirements on nominal payment basis. The duration of the project/ dissertation/ internship varies depending on the module and requirements of the students. The School also offers facilities to carry out various qualitative and quantitative research activities on specified equipment on nominal payment basis.

Our School has laboratories dedicated to various fields of Biotechnology including analytical equipments; Gel Doc system, HPLC, Thermocycler, UV-Transilluminator, CO₂ Incubator, UV-Vis Spectrophotometer, High-Speed Centrifuge, Mili Q Water Purification System, Spectrofluorometer, Bio-Safety Cabinet, Cryocans, ELISA Reader, Electrophoresis System, Orbital Shaking Incubator, Air Sampler, Spectro quant Nova-60, Water Quality Analyzer, EC-TDS Analyzer, -20 & -80 °C Deep Fridges, Fluorescence Microscope, Inverted Microscope, Microphotography, Rotary Evaporator, Sonicator, and Automated Plant Tissue Culture Laboratory etc.



Gel documentation system



Microscope



Centrifuge



Plant Tissue Culture



Spectrofluorometer



Mili Q Water Purification System



Spectrophotometer



HPLC



Thermal Cycler



Plant
Biotechnology
Laboratory



Mushroom
Biotechnology
Laboratory



Stress Biology &
Germplasm Conservation
Laboratory



Bioprocess
Laboratory



Microbiology
Laboratory

THRUST AREAS OF RESEARCH

PLANT BIOTECHNOLOGY LABORATORY

- Micropropagation
- Callus culture
- Genetic fidelity assessment
- Abiotic stress tolerance and mitigation strategies:
 - Drought, Salt, Cold, Heavy metals

MUSHROOM BIOTECHNOLOGY LABORATORY

- Propagation and conservation of mushrooms of medicinal importance
- Analysis of nutritional and medicinal properties of mushrooms
- Mushroom biofortification
- Functional foods
- Drug discovery
- Bioremediation

STRESS BIOLOGY AND GERmplasm CONSERVATION LABORATORY

- Ageing-induced metabolic amendments in tropical tree seeds
- Post-harvest handling and storage of tropical tree seeds
- Heavy metal-imposed injuries in seeds/ seedlings
- Salinity-induced responses in seeds/ seedlings
- Microbial remediation of heavy metals and pesticides
- Nanotechnology and its applications
- Molecular biology and gene expression analysis

BIOPROCESS LABORATORY

- Bioethanol production from lignocellulosic substrates
- Biovalorization of different agricultural wastes for enzyme production, process optimization, kinetic study
- Sustainable energy, such as biohydrogen and bioelectricity generation from various waste substrates
- Fermentation of wastes for production of acids, biofuel, antibiotics, enzyme etc.
- Optimization and scale-up of bioprocess parameters for better product yield
- Exploration of potential of microorganisms for generation of industrial products.

MICROBIOLOGY LABORATORY

- Sterilization procedures
- Preparation of media
- Microbial culture methods (pour plate & streak plate)
- Isolation of microbes from various samples
- Identification of microorganisms by various staining techniques
- Antibiotic sensitivity assay

Contact: Head of the Department, School of Studies in Biotechnology, PRSU

Phone: 0771 2263022, Fax: 0771 2262583, Email: sosinbiotechrsu@gmail.com

Website: <http://www.prsu.ac.in/UTDDepartments.aspx>

