

# Presence of a Research Centre with a specific focus on environmental sustainability



---

**Swami Vivekanand Subharti University, Meerut**

(Established under U.P. Govt. Act no. 29 of 2008 and approved under section 2(f) of UGC Act 1956)

## Presence of a Research Centre with a Specific Focus on Environmental Sustainability

Swami Vivekanand Subharti University is a research-focused institution that views research as a crucial part of education. Our mission has been to foster and develop creativity through research ecosystems since the university's founding. For students, faculty, and staff pursuing undergraduate, graduate, and doctoral degrees, the university promotes research at all levels, including internal, individual, and collaborative multidisciplinary research on a national and worldwide scale. The Research and Development Cell constantly monitors and supports the Ph.D. students, who are guided by highly skilled and experienced academic members.



## 1. Institutional Research Framework for Environmental Sustainability

Swami Vivekanand Subharti University has developed a multi-disciplinary research ecosystem dedicated to environmental sustainability, supported by academic departments, research laboratories, committees, and campus initiatives.

The Central Research and Incubation Centre (CRIC) promotes research, innovation, and interdisciplinary projects addressing societal challenges, including environmental protection and sustainable development.

Environmental sustainability research is integrated across UG, PG, and PhD programmes, where scholars conduct research on climate change, environmental management, pollution control, and sustainable technologies.



**Central Research and Incubation Centre (CRIC)**

## 2. Academic Departments Supporting Environmental Sustainability Research

Department of Environmental Engineering / Environmental Engineering & Management offers specialized programmes and research opportunities.

The department includes Environmental Monitoring Laboratories equipped for:

- Air quality monitoring
- Water quality analysis
- Soil and pollution assessment
- Environmental impact studies.
- Students and research scholars undertake:
  - Environmental monitoring projects
  - Climate and pollution studies
  - Green audit participation
  - Waste management and sustainability research.



**Quality Control Testing Lab**

### **3. Environmental Governance and Institutional Committees**

The University has established institutional mechanisms to guide sustainability initiatives:

- A. University Environment Concern Committee
- B. Green Campus and Sustainability Initiatives
- C. Energy Conservation and Resource Management Programs

These bodies coordinate environmental awareness, policy implementation, and sustainability activities across the campus.

#### 4. Integration of Environmental Studies in Academic Curriculum

Environmental Studies is a compulsory subject across many undergraduate programmes in accordance with national academic guidelines.

Environmental themes are integrated into:

- UG and PG dissertations
- Field projects
- Research methodology courses

PhD theses focusing on environmental sustainability.



**Academic Conferences on Climate Change and Sustainable Environment**



**Lecture on Research Methodology**

## 5. Research, Publication and Innovation Activities Related to Sustainability

Research activities at the university address multiple environmental challenges:

- Pollution monitoring and environmental impact studies
- Sustainable resource management
- Renewable energy and energy conservation
- Waste recycling and composting
- Climate change and sustainable urban development

Several PhD scholars and postgraduate students pursue dissertations related to environmental sustainability and ecological protection.

**Research Projects/Clinical Research Project Sponsored by The Government Funding Agencies-**Technology Development of Cement based Material using Biomass fly ash converted from agricultural residues, Ministry of Science and Technology, Govt. of India Government Dept. of Botany and Biotechnology, Faculty of Science 2023-2026, 3.42Lac,3 Years.

Web site links for publications-<https://subharti.org/documents/unsdg/new/Report%20of%20SDG%20-%206.pdf>

<https://subharti.org/documents/unsdg/new/Report%20of%20SDG%20-%207.pdf>

### **Sustainable Campus as a Research and Innovation Hub**

The university campus serves as a living laboratory for environmental sustainability study, with activities and infrastructure that directly support scholarly investigation. While bio-composting and vermicomposting units offer practical research in organic waste management, facilities like rainfall gathering pits facilitate the study of water conservation and groundwater recharging. Waste segregation, recycling, energy saving, and paperless administration are examples of initiatives that produce real-time data and case studies for environmental monitoring and analysis.

The Construction and Maintenance Department of Swami Vivekanand Subharti University provides ongoing opportunities for study on sustainable water management techniques through the methodical installation of rainwater harvesting equipment on rooftops and open spaces. In general, applied research, innovation, and hands-on learning in environmental sustainability are supported by the campus ecology.

Because the campus consistently produces real-world data, systems, and experimentation possibilities that can be examined, tested, and improved rather than only showcasing sustainability practices it is eligible to be considered a living research laboratory.

This occurs in three distinct ways at Swami Vivekanand Subharti University:

### 1. Real-time research systems

Every day, the composting units, rainwater gathering structures, and sewage treatment plant (STP) are in operation. Water quality, treatment effectiveness, sludge conversion, and reuse results can all be measured by students and researchers in real-world settings rather than simulations.

### 2. Multidisciplinary and experimental education

These facilities make it possible to test novel concepts like increasing the effectiveness of recycling, maximizing irrigation with treated water, or evaluating the quality of compost. This promotes public health, engineering, and environmental science research.

### 3. Quantifiable impact on sustainability

Evidence-based research and publications are made possible by practices like wastewater reuse, composting, and restricted vehicle entrance, which offer measurable data on carbon reduction, resource conservation, and climate impact.



**Rain Water Harvesting**



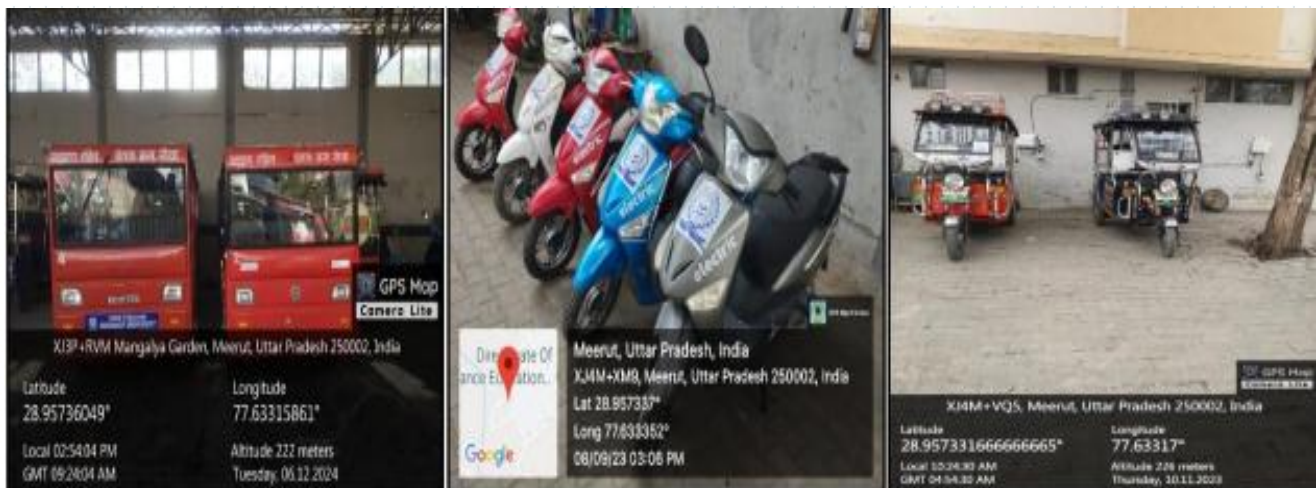
**Waste Water Recycling**

**Restricted Entry of Automobiles:** At Swami Vivekanand Subharti University, restricted automobile entry, use of university buses, cycling practices, and regular “Car-Free Days” create a practical setup for environmental research on sustainable transportation. These initiatives provide real-time data to study reduction in carbon emissions, fuel conservation, and air quality improvement, supporting research in climate change mitigation.



### Restricted Entry of Automobiles

At Swami Vivekanand Subharti University, battery-powered vehicles support environmental research on clean mobility, enabling study of reduced emissions, energy efficiency, and sustainable campus transport systems.



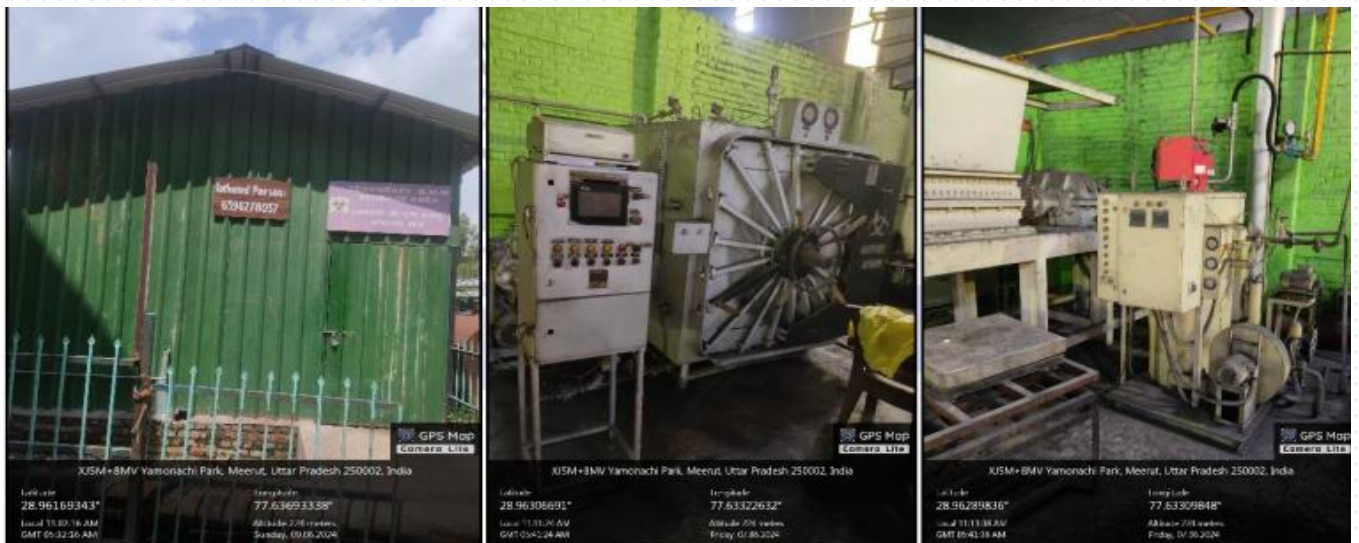
### Battery-powered Vehicles

**Solid trash Management:** Environmental research on trash characterization, recycling effectiveness, and sustainable disposal methods is supported at Swami Vivekanand Subharti University through systematic solid waste management that separates garbage into biodegradable and non-biodegradable categories. It offers up-to-date data for researching environmental impact reduction and resource recovery. Plastic, metals, glass bottles, and other non-biodegradable debris are all hauled separately to the garbage segregation facility.



### Solid Waste Management

**Bio-medical Waste Management:** At Swami Vivekanand Subharti University, environmental research on safe waste handling, infection control, and environmental protection is supported by the bio-medical waste management system, which includes segregation, controlled storage, approved transport, and safe disposal. It offers useful information about sustainable healthcare waste management techniques and regulatory compliance.



### Bio-medical Waste Management

**Hazardous Chemical Waste Management:** Environmental research on safe disposal techniques, risk reduction, and regulatory compliance is supported by Swami Vivekanand Subharti University's hazardous chemical waste management system. Sustainable laboratory practices are promoted by procedures including segregation, permitted treatment, and student training, which offer chances to learn about the handling of toxic waste and its effects on the environment.



### Hazardous Chemical Waste Management

**Liquid Waste Management:** At Swami Vivekanand Subharti University, environmental research on water recycling, pollution control, and sustainable waste treatment systems is supported by liquid waste management through STP-based treatment, wastewater reuse for irrigation, and safe handling of laboratory effluents.



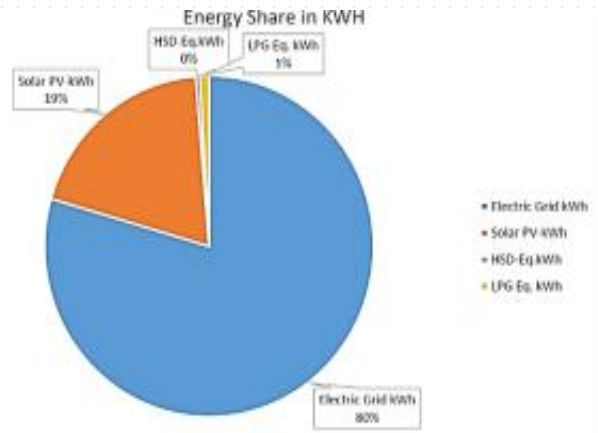
### Liquid Waste Management

### Medicinal Plant Garden-



### Medicinal Plant Garden

**Solar Energy Conservation:** At Swami Vivekanand Subharti University, environmental research on the use of renewable energy, energy efficiency, and carbon footprint reduction is supported by the adoption of solar energy and energy conservation methods. Initiatives like LED lighting, sensor-based systems, rooftop solar PV systems, and energy-saving techniques offer real-time data for researching climate change mitigation and sustainable energy management.




**Solar Energy Conservation System**


**Skill Labs-**

# Skills Labs


Trust  
Statutes and Ordinances  
Recognitions & Certificates  
Medical  
El Report  
National Develop  
ular & Notices  
Openings



**Advance Clinical Skill Lab**




**Model of Laparoscopic for Gynecological Surgeries**




**Complete Care Cardiac Trainer System**




**Training for Maternal and Neonatal Emergency and Delivery Mechanism**





**Training for Ryle's Tube Insertion (Nasogastric Feeding)**



**Training for Neonatal Resuscitation**







In conclusion, A thorough institutional framework that serves as a Research Center for Environmental Sustainability has been built by Swami Vivekanand Subharti University through:

- Academic departments with specialization
- Laboratories for environmental research

Committees on the environment at universities

Multidisciplinary research initiatives• Campus initiatives that prioritize sustainability

When taken as a whole, these programs show the University's steadfast dedication to ecological responsibility, sustainable development, and environmental research, which is in line with both national and international Sustainable Development Goals (SDGs).

\*\*\*\*\*