



Faculty of Architecture and Planning,
Dr APJ Abdul Kalam Technical University, Lucknow

STANDARD OPERATING PROCEDURE (SOP) FOR THE USAGE OF ENVIRONMENTAL LAB

1. Overview

The Environmental Lab within the Faculty of Architecture and Planning, AKTU serves as a crucial facility for conducting experiments, research, and practical exercises related to environmental sustainability and design principles. This SOP outlines the procedures and protocols to be followed by students, faculty, and staff to ensure the safe, efficient, and effective utilization of the lab resources. By adhering to this SOP, all stakeholders contribute to a conducive learning environment that promotes academic excellence, fosters innovation, and prioritizes safety.

2. Administrative Structure

2.1 Lab Coordinator/Faculty Oversight:

- Responsibilities include overseeing day-to-day operations, scheduling, maintenance of equipment, and ensuring adherence to safety protocols.
- The lab coordinator serves as the primary point of contact for all lab-related inquiries and issues.
- A designated faculty member from the institute provides academic oversight.
- Approves experiment proposals, ensures alignment with curriculum objectives, and monitors student progress.

2.2 Lab Technician/Assistant:

- Assists the lab coordinator in equipment setup, maintenance, and troubleshooting.
- Supports students and faculty members during experiments and ensures proper functioning of instruments.

2.3 Lab Access:

- Only authorized personnel, including faculty members, lab technicians, and enrolled students, have access to the lab.
- Access is restricted to designated operating hours, and users must sign in upon entry.

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3. Practical and Experiment SOP

3.1 Experiment Approval:

- Faculty members submit experiment proposals to the lab coordinator for approval.
- Proposals include objectives, methodology, safety considerations, and required resources.

3.2 Safety Briefing:

- Prior to conducting any experiment, students attend a safety briefing conducted by the lab coordinator or designated personnel.
- Briefing covers emergency procedures, equipment handling, and software usage.

3.3 Equipment Setup:

- Lab technicians assist students in setting up equipment according to experiment specifications.
- Ensure calibration and proper functioning of instruments before experimentation begins.

3.4 Experiment Execution:

- Students conduct experiments under supervision, following prescribed methodology.
- Accurately record observations and data as per experimental requirements.

3.5 Data Analysis:

- Students analyze collected data and prepare reports under faculty guidance.
- Reports should include findings, interpretations, and conclusions drawn from the experiment.

3.6 Lab Cleanliness:

- Students are responsible for cleaning workstations after experiments.
- Proper disposal of waste materials and return of equipment to designated storage areas.


4. Equipment Issuance to Students

4.1 Equipment Reservation:

- Students can issue an equipment for maximum one week through the application duly forwarded by the subject teacher in charge for the particular experiment submitted to lab coordinator.
- Reservations should be made in advance to ensure availability.
- Only equipment with multiple copies available will be issued.
- Single-piece equipment will not be issued for off-site experiments; all experiments must be conducted within the lab premises.

4.2 Equipment Checkout:

- Students collect reserved equipment from the lab technician, presenting student ID cards.


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- Sign checkout form acknowledging receipt and agreement to adhere to usage guidelines.

4.3 Equipment Return:

- After experiments, students return equipment to designated areas.
- Lab technicians inspect equipment for damage or missing components before acceptance.

4.4 Equipment Maintenance:

- Lab technicians conduct regular maintenance checks on all equipment.
- Report any issues or damage to the lab coordinator for repair or replacement.

5. Incident Reporting:

5.1 Safety Incidents:

- Students must report safety incidents or equipment malfunctions immediately to lab coordinator or faculty.
- Investigation conducted, and corrective actions implemented to prevent recurrence.

5.2 Damage or Loss:

- Students financially liable for damage or loss of equipment due to negligence or misuse.
- Report incidents promptly for reimbursement or replacement procedures.

6. Compliance and Review:

6.1 Regulatory Compliance:


- Environmental lab operates in compliance with safety regulations and institutional policies.
- Regular audits ensure adherence to standards and regulations.

6.2 Continuous Improvement:

- Lab coordinator conducts periodic reviews of SOPs, soliciting feedback for improvement.
- Updates made as necessary to enhance efficiency, safety, and effectiveness.

Conclusion:

This SOP provides a structured framework for the operation of the environmental lab within the institute. By following these guidelines, students, faculty, and staff contribute to a safe, productive, and conducive learning environment that fosters academic excellence and innovation in the field of environmental sustainability and design principles.


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