

Standard Operating Procedure (SOP) for Surveying Lab

1. Lab Entry Protocol

Entry to the surveying lab is only permitted with the lab coat, safety shoes, and an ID card. Unauthorized individuals are strictly prohibited from entering the lab.

2. Instrument Check

Before use, ensure that all surveying instruments such as the total station, theodolite, compass, and auto level are in proper working condition. Check the calibration and leveling status of each instrument.

3. Personal Protective Equipment (PPE)

Always wear required PPE such as helmet, gloves, and safety shoes during field activities to ensure safety.

4. Survey Site Preparation

Clear any obstacles and ensure that the survey area is clean and safe. Prepare a stable base for setting up the instruments.

5. Levelling of Instruments

Ensure that all instruments are levelled and centred correctly before taking measurements. This ensures accurate readings.

6. Instrument Handling

Handle instruments with care. Avoid sudden movements or rough handling that could damage the equipment or affect measurement accuracy.

7. Recording Observations

Record all observations in the field book with clear and accurate details. Double-check readings and measurements to ensure no errors.

8. Data Accuracy

Repeat measurements when necessary to ensure the accuracy of data. Calculate means, and verify readings to minimize errors.

9. Weather Precautions

Take necessary precautions in adverse weather conditions such as rain, extreme heat, or wind to protect the equipment from damage.

10. Communication

Maintain clear and continuous communication among team members during activities such as chaining or ranging.

11. Post-Use Care

After completing the survey, clean all instruments thoroughly, lock them properly, and store them safely in their designated cases.

12. Safety Around Traffic

If working near roads or traffic zones, ensure that safety measures such as jackets, caution signs, and warning lights are used.

13. Battery & Power Check

Check the battery level of electronic instruments (e.g., total station) before use and carry extra batteries to avoid interruptions.

14. Daily Logs

Maintain a daily log of the work carried out, including instruments used, areas surveyed, and team members involved.

15. Emergency Protocols

Ensure everyone is familiar with the location of first aid kits, emergency contact numbers, and evacuation routes in case of an emergency.