



B.N.M. Institute of Technology

An Autonomous Institution under VTU

**Approved by AICTE, Accredited as Grade A Institute by NAAC
27th Cross, 12th Main, Banashankari 2nd Stage, Bengaluru, 560070.**

Maintenance Policy

1. Purpose

This policy establishes a systematic framework for maintaining laboratory infrastructure, computer systems, equipment, software and network facilities in all departments. It ensures that laboratories remain functional, secure, clean and conducive to effective teaching, learning, project development and research.

2. Scope

This policy applies to all departmental laboratories and associated facilities, including:

- Desktop computers, workstations and related hardware.
- Laboratory software, operating systems and application packages.
- Network and Internet connectivity.
- Power backup and associated electrical infrastructure.
- Laboratory furniture, fixtures and supporting infrastructure.
- Laboratory cleanliness, ventilation, organization and overall ambience.

3. Objectives

- Ensure regular, preventive and corrective maintenance of laboratory systems and equipment.
- Minimize system downtime and support uninterrupted academic operations.
- Keep hardware, software and network facilities updated and secure.
- Identify and rectify faults at the earliest possible time.
- Maintain records of complaints, inspections, repairs, replacements and service activities.
- Provide a clean, safe, well-ventilated and organized laboratory environment.

4. Maintenance Policy

The department shall maintain laboratory systems and equipment through planned preventive maintenance and timely corrective maintenance. Hardware and software requirements shall be reviewed in accordance with curriculum revisions, laboratory requirements and emerging academic needs.

- All systems are inspected and upgraded as required at the beginning and end of each semester to ensure seamless academic operations.
- Periodic hardware and software upgrades shall be undertaken to maintain efficient laboratory functioning and reduce system downtime.
- Hardware, software and network-related issues shall be addressed promptly as they arise.
- Minor repairs shall be handled by the System Administrator or designated technical staff using available resources and technical expertise.
- Where internal resolution is not feasible, the issue shall be escalated to the authorized service provider/vendor.
- Faulty components shall be repaired or replaced, wherever required, based on warranty coverage, technical feasibility, availability of resources, and approval from the competent authority.
- The department shall utilize the 120 KVA UPS and battery backup to support continuity of laboratory operations during power interruptions.
- Security measures, including antivirus scans, security patches and system updates, shall be implemented periodically.

5. Roles and Responsibilities

Role	Responsibility
Head of the Department	Overall supervision of laboratory maintenance and review of maintenance requirements.
Lab In-charge	Coordinate inspections, maintenance activities, issue reporting, records and laboratory ambience.
System Administrator / Technical Staff	Diagnose and resolve hardware, software and network issues; perform updates, security checks and minor repairs.
Lab Instructor / Support Staff	Conduct routine checks, maintain cleanliness and report faults or deficiencies.
Authorized Vendor / Service Provider	Undertake specialized repairs, servicing, and warranty support when required.

6. Corrective Maintenance Procedure

- Problems reported by users, such as system failures, errors or performance issues, shall be identified and assessed.
- Each issue shall be recorded in the appropriate maintenance/complaint record.
- The System Administrator or designated technical staff shall diagnose the cause of the problem.
- Necessary repairs, configuration changes or replacement of faulty hardware/software shall be carried out.
- Warranty-related cases shall be referred to the concerned manufacturer/vendor or authorized service provider for necessary repair or replacement..
- The system shall be tested after repair to confirm proper functioning.
- Maintenance actions and closure details shall be documented for future reference.

7. Preventive Maintenance Procedure

- Regularly scheduled inspections shall be conducted to verify proper system and equipment functioning.
- Operating system, application and security updates shall be installed as required.
- RAM, storage devices, power supply units, cables and other key components shall be checked periodically.
- Antivirus scans, disk cleanup, removal of unwanted software and performance optimization shall be carried out.
- Network connectivity and related equipment shall be checked periodically.
- Systems shall be tested after maintenance to verify proper functioning.
- Laboratory equipment and work areas shall be cleaned regularly, including removal of dust from systems and accessible equipment surfaces.
- Preventive maintenance activities shall be recorded in the relevant register/checklist.

8. Maintenance Schedule

Activity	Frequency	Responsible
Laboratory cleaning and housekeeping	Weekly Twice	Lab Support Staff
Basic system/equipment inspection	Beginning and End of Each Semester	Lab In-charge / Technical Staff
Hardware and software requirements review	Beginning and End of Each Semester / As Required	HoD / System Administrator
Security scans and patch updates	Periodically / As required	System Administrator
Stock verification	Annually	Department / Authorized Team

9. Warranty and External Service Support

Hardware and equipment under warranty shall be serviced or replaced as per the applicable warranty terms. For faults beyond the warranty period, repairs or replacements shall be undertaken through available technical resources or authorized service providers, as required. Service and repair records shall be maintained for reference.

10. Laboratory Safety, Cleanliness and Overall Ambience

- Laboratories shall be properly ventilated and adequately illuminated to provide a conducive learning environment.
- Laboratory floors, workstations, computer systems and accessible equipment surfaces shall be kept clean and free from excessive dust.
- Laboratory-related information, instructions, and other relevant academic materials may be displayed on notice boards/walls for student reference.
- Hardware components, cables and accessories shall be arranged systematically in designated storage/compartments boxes.
- Walkways and working areas shall be kept clear and organized.
- Power backup and electrical facilities shall be maintained in functional condition to support safe and continuous laboratory operation.

11. System Downtime and Escalation

- Immediate corrective action shall be initiated whenever system downtime affects academic activities.
- If an issue cannot be resolved internally, it shall be escalated to the authorized vendor/service provider or concerned institutional support unit.
- Critical failures affecting multiple systems or scheduled laboratory activities shall be given priority.
- The date of reporting, action taken, downtime, resolution and closure shall be recorded wherever applicable.

12. Records and Documentation

- Laboratory Maintenance / Complaint Register
- Preventive Maintenance Checklist
- Equipment Service and Repair Records

- Warranty and External Service Documents
- Software Update and Security Maintenance Records
- Stock Register and Annual Stock Verification Records

13. Monitoring and Review

Implementation of this policy shall be reviewed periodically by all departments. Improvements shall be incorporated based on laboratory requirements, curriculum changes, equipment condition, maintenance records and institutional requirements.

14. Review and Validity

This Laboratory Maintenance Policy & Procedure shall be reviewed periodically to ensure its continued relevance and effectiveness. Necessary revisions shall be incorporated based on laboratory requirements and institutional needs, with the approval of the competent authority.



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