

DR. RAMMANOHAR LOHIA AVADH UNIVERSITY, AYODHYA



INFRASTRUCTURE MAINTENANCE POLICY 2024

Dr. Rmamanohar Lohia Avadh University Near Hawaii Patti
Prayagraj Road Ayodhya,(U.P.), India
Pin: 224001



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1. Introduction:

Dr. Rammanohar Lohia Avadh University, Ayodhya has a comprehensive infrastructure designed to support its educational, research, and outreach activities. The institution has implemented a structured system for managing and utilizing its infrastructure across its campuses in Ayodhya city.

The Engineering and Maintenance section of the University is responsible for maintaining all infrastructures, developing campus plans, and managing associated activities. It includes civil and electrical/mechanical wings.

The University shall comply with the standard construction and maintenance practices as per the government-approved procedures and guidelines issued from time to time. The maintenance policy of the University is as follows:

2. Objectives:

- To ensure the effective utilization and maintenance of existing infrastructure facilities.
- To maintain safe environment by adhering to safety standards, regulations, and best practices.
- To improve the performance, reliability, and efficiency of assets and systems through proactive maintenance strategies and continuous improvement initiatives.
- To preserve the value and lifespan of assets, including buildings, machinery, equipment, and infrastructure, through regular maintenance.

3. Scope:

The scope of this policy covers repair and maintenance of the following:

- i. Repair and maintenance of all existing buildings.
- ii. Civil infrastructures such as roads, sewerage systems, storm water Drains, water supply system and water sources.
- iii. Electrical and Mechanical Infrastructure
- iv. ICT Infrastructure
- v. Departments and Laboratories
- vi. Sports facilities
- vii. Horticulture



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4. Procedure of Maintenance System :

- i. Preparing cost estimates for maintenance, repair, renovation, or new projects according to the approved schedule of rates outlined by CPWD/Public Works Department administrative approvals are sought. This involves the process of inviting quotations, tenders, Expressions of Interest (EOI), Memorandum of Understanding (MOU) etc.
- ii. Ensuring timely completion and quality adherence of approved works, monitoring activities are conducted. This includes verifying and processing bills for payment to the Finance Officer after appropriate entries are made in measurement books, stock registers, etc. for audit processes.
- iii. Supporting in removing condemned and discarded furniture, fixtures, and items upon request from the Head of Department (HOD) or respective In-charge. These items are transferred to the scrap yard or store for disposal under the Registrar's directives.

Note:

All the procedures and protocols related to maintenance of infrastructure are subject to change in accordance with guidelines issued by U.P State Public Works Department / CPWD/Guidelines issued by State Higher Education Department.

5. Components of a Maintenance System:

The maintenance system includes the following components:

- a) Prioritization of work
- b) Comprehensive work procedures
- c) Performance standards and goals
- d) Work order system
- e) Long-range planning

a) Prioritization of Work

The work priorities adopted by the Engineering and Maintenance Section demonstrate its philosophy of delivering maintenance services. This priority system ensures that timely completion of maintenance work at optimum cost.

The maintenance priorities of the University assets and buildings are as follows:



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- i.** Emergency repairs
- ii.** Planned maintenance
- iii.** Resident requests
- iv.** General cleaning
- v.** Inspection
- vi.** Preventive maintenance
- vii.** Miscellaneous

Ultimately, this approach reduces temporary tasks and ensures that the infrastructures/facilities is maintained in such a way that it promotes satisfaction among students and staff.

b) Comprehensive work procedures

The Engineering and Maintenance Section will guarantee the availability of well-defined procedures for staff to execute the policy effectively. These procedures will consist the following:

- i.** A statement of purpose.
- ii.** The job title of the staff member's responsibility for carrying out the activities.
- iii.** Formats needed to carry out the activities.
- iv.** An annual review of the maintenance procedures.

c) Performance Standards and Goals

The Engineering and Maintenance Section will create measures to assess the efficiency of maintenance systems and activities. When setting these standards, the University will consider specific factors as given below:

- i.** National/State building and fire safety standards
- ii.** State Building Codes.
- iii.** University Agreements.
- iv.** Job descriptions of works to be undertaken.



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The Engineering and Maintenance Section is not restricted by the standards outlined in the documents listed above and can establish higher standards as needed. These standards and objectives will serve as benchmarks to assess current operations and performances.

d) Work Order Systems:

The Engineering and Maintenance Section will implement a thorough work order system containing essential information such as the source of work, work description, priority, cost, and completion timeframe. To ensure optimal effectiveness of the work order system, all maintenance staff activities and requests must be documented on work schedules, including at least the following details:

- i. Source of request
- ii. Priority assigned.
- iii. Location of work.
- iv. Date and time received.
- v. Date and time assigned.
- vi. Worker(s) assigned.
- vii. Description of work requested
- viii. Description of work performed
- ix. Estimated and actual time to complete.
- x. Materials used to complete work.

e) Long Range Planning

The Engineering and Maintenance Section will establish and sustain a long-term maintenance planning capability to optimize the cost-effective utilization of University resources and extend the lifespan of University infrastructures. The University can forecast its requirements for staff, equipment, and materials etc. This approach also facilitates identifying the necessity for outsourcing specific services.



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6. Types of Maintenance:

Maintenance involves completing tasks necessary to uphold or restore buildings and equipment to their original condition or a state suitable for effective use in their intended functions, thereby guaranteeing uninterrupted campus operations. The University conducts four types of maintenance as follows.

- a) Routine/Normal Maintenance
- b) Preventative Maintenance
- c) Scheduled Maintenance
- d) Corrective Maintenance
- e) Complaints/ requests from departments, offices, hostels, residents etc.

a) Routine /Normal Maintenance:

Cyclic or planned work activities funded through the annual budget, carried out to maintain the originally anticipated life of a fixed asset (i.e. buildings, equipments etc). Normal/routine maintenance is performed on capital assets to help them to reach their originally anticipated life.

b) Preventive Maintenance:

A systematic and regulated program involving periodic inspections, lubrication/oiling, component replacements, and cleaning is conducted to prolong the useful life of building systems and maintain their operation close to the design level. The objectives of preventive maintenance include the following:

- i. Reducing the occurrence of breakdowns.
- ii. Prevention of dampness and seepage of buildings
- iii. Reducing energy consumption.
- iv. Reducing overall maintenance costs



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c) Schedule Maintenance:

Scheduled maintenance refers to any repair, cleaning, or component/system replacement done periodically to prevent failure. It involves tasks performed at fixed time intervals for maintenance purposes, inspections, adjustments, routine servicing etc.

d) Corrective Maintenance:

It refers to maintenance activities aimed to address defects observed in civil, mechanical, electrical, or ICT infrastructure during its design life or operation. These defects may include cracks, seepage, plaster issues, breakdowns of equipment to ensure optimal performance and stability of the infrastructure.

Table 1, outlines the types and classifications of maintenance within the University, along with indicative descriptions of the associated works and frequency. This classification can also be applied to all maintenance within the university campus.

Table 1: Types and classification of maintenance

Types	Types of Maintenance	Description of work	frequency
Civil	Scheduled	Painting of all building (academic, main building, central facilities, hostels, staff residence etc)	Every four years/as it comes in notice
		Cleaning of over head water tank in academic /main building/hotels/staff residence etc	As required
		Water cooler, RO system	As required
	Routine /Normal	Cleaning of offices/building/street and washrooms in the university	Daily
	Preventive	Earthquake resistant design Damp proofing course Water proofing course	At the time of construction
	Correctives	Water proofing and seepage, spalling of plaster or concrete	As it comes in notice



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	Complaint request from hostels/residents	Repair and maintenance of civil works	As it comes in notice
Mechanical	Routine /Normal	Cleaning of sewer and storm water drains.	Once in a year/ As came in notice
		All AMC related to Lift /equipments	As it comes in notice/ Every year as per agreement or warranty period
	Emergent	Major breakdown in pumps or water supply	As it comes in notice
Electrical	Routine /Normal	Maintenance of electrical appliances like fan, exhaust, tube light etc. and AMC of Air conditioner system,	As it comes in notice/ Every year as per agreement or warranty period
	Preventive	Major breakdown in transformer/cables Power breakdown due to heavy rain/wind	On urgent basis
	Complain request from office /academics hostels/residents	Repair and maintenance of electric supply to minimize any breakdown	As and when the request received within a day
ICT facilities	Scheduled	All AMC related to ICT infrastructure	Every year as per agreement or warranty period
	Preventive	Installation of antivirus and other security services to prevent from any malfunction	As the time of new facility or as per warranty period
	Complain request from hostels/residents	Repair and maintenance of ICT facilities	As it comes in notice
Horticulture	Routine /Normal	Grass cutting of lawn ,academic area ,playgrounds. Plantation and	Routine work



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		maintenance of lawns and garden in campus	
	Complain request from hostels/residents/campus	Maintaining of campus cleanliness	Routine work
Departmental Laboratories	Routine /Normal	Oiling and calibration of machines	As it comes in notice /routine
	Schedule	AMC of laboratories/equipments of sophisticated analytical instruments	Every year as per agreement or warranty period
	Complain request from department	Maintaining the lab infrastructure	As it comes in notice

6.0 Standard Operating Procedures of Infrastructure Maintenances

a) Maintenance of Physical Facilities:

The Engineering and Maintenance Section ensure the physical facilities across University campuses, employing skilled civil engineer as well as support staff like plumbers, electricians, and carpenters, available round the clock. The section ensure continuous power supply and to maintain equipment like generators, lighting systems, power distribution networks, and solar panels. Support staff handle tasks related to water plumbing plants, sewage systems, and drainage.

Campus Engineering and Maintenance section manages maintenance and cleanliness across various areas including buildings, classrooms, labs, furniture, grounds, sports facilities, lounges, amenity areas, cafeteria, and hostels. The Engineering and Maintenance section also oversees transport facilities and vehicles owned by the University.

The Engineering and Maintenance section ensures adequate fire-fighting arrangement in common areas such as central library, auditorium, conference hall at major events organized on campus such as Convocation/annual function /conference /seminar etc. and coordination with respective departments for any such response in emergency.



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b) Maintenance of Classrooms, Furniture and Laboratories:

The classrooms, including furniture and teaching aids, along with laboratories, are maintained by the staff and attendants of the respective departments. These activities are supervised by the Head of each Department. Laboratory assistants are responsible for the maintenance of their respective laboratories. The Heads of Department periodically report to the administration regarding all maintenance works on the basis of following criteria;

- i. Inspection and Repair
- ii. Equipment Maintenance
- iii. Safety Checks
- iv. Upgrades and Renovations

c) Maintenance of Library and Library Resources:

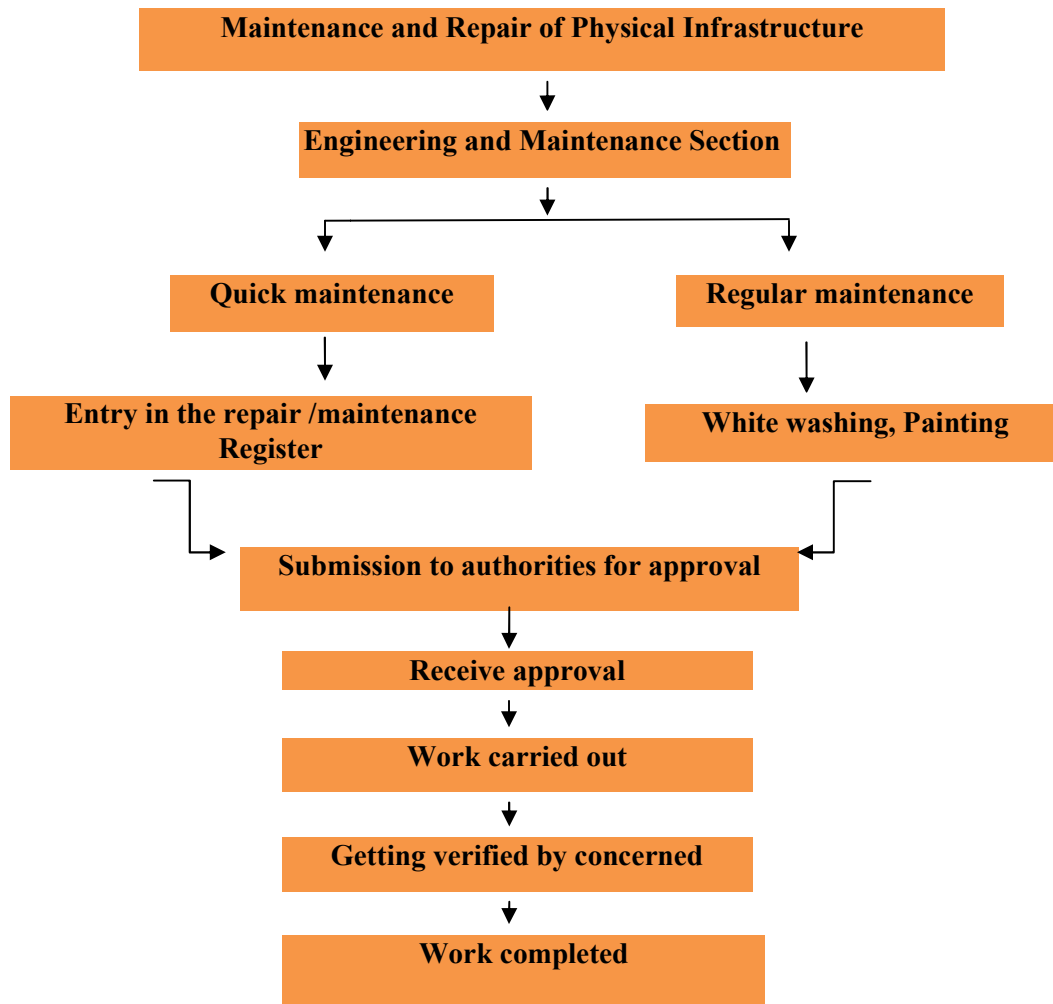
The library staff is responsible for managing library resources and to handle library documents during processing, shelving, and transportation. To maintain the quality of documents, it's crucial to prevent dust accumulation. Pest management practices are implemented to minimize insect-related problems. Proper cleaning, fumigation, and exposure to sunlight help reduce insect effects in the library, while repellants and chemicals are used to safeguard the library resources. The Library automation systems, computers, printers, scanners, and other technological resources are maintained and updated through Annual maintenance Contract to ensure their functionality and reliability.

d) Maintenance and Utilization of Seminar Halls and Auditorium:

Maintenance of seminar halls and auditoriums is overseen by the Engineering and Maintenance Section of the University. These areas are efficiently utilized for hosting academic meetings, seminars, conferences, and cultural events.



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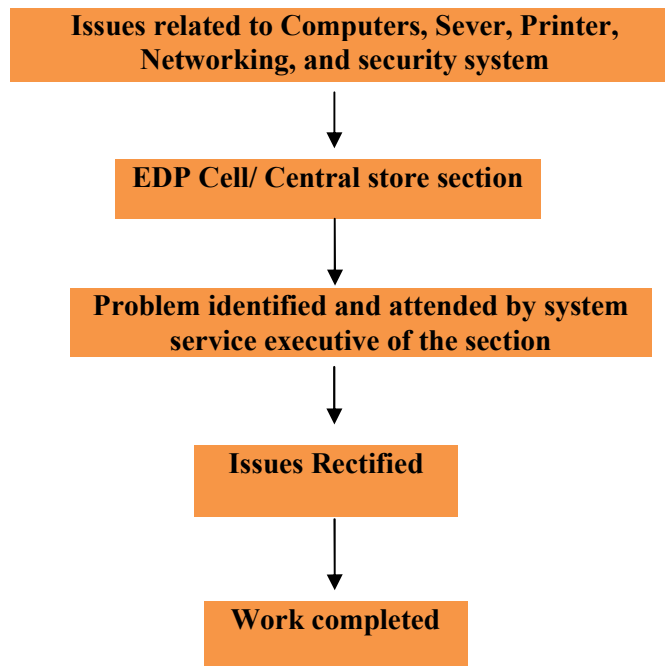
Flow chart of infrastructure maintenance

e) Maintenance of ICT Facilities:

ICT facilities such as computers, UPS, Projector, Podium, LAN and wi-fi and interactive panel etc. will be maintained through Annual maintenance Contract To reduce e-waste .



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Flow chart of ICT facilities maintenance

f) Maintenance of Sports and Games Facility:

The University sports committee is responsible for managing and maintains sports, fitness equipment, grounds, and courts across its campus. High-value equipment in the fitness lab undergoes maintenance through an Annual Maintenance Contract. Ground-level maintenance is conducted annually during breaks, with additional seasonal maintenance as required.

Sports equipment is maintained by grounds men, sports goods vendors, and Physical Education students under the supervision of head of the department. The gymnasiums and playgrounds are looked after by staff members of the Physical Education Department and Engineering and Maintenance section of the University.

g) Maintenance of Campus Cleanliness:

The campus; encompassing academics and administrative buildings, undergo daily cleaning before regular classes start in the morning. An outsourced housekeeping team assists in this task. Toilets are



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cleaned three times daily. The housekeeping supervisor manages the entire campus for maintenance and reports completed work to the cleanliness and sanitation in-charge.

h) Maintenance of Life Safety Systems

The University will establish thorough program to maintain life safety systems, ensuring their full functionality during emergencies. The Engineering and maintenance Section will execute a schedule for inspecting, servicing, and testing this equipment. The equipment included in the plan is as follows:

- Fire alarms and fire alarm systems
- Fire extinguishers
- Fire hoses
- Emergency generators
- Emergency lighting
- Smoke detectors
- Sprinkler systems