MADHAV INSTITUTE OF TECHNOLOGY & SCIENCE, GWALIOR (M.P.), INDIA
माधव प्रौद्योगिकी एवं विज्ञान संस्थान, ग्वालियर (म.प्र.), भारत

INFRASTRUCTURE MAINTENANCE POLICY

1. Summary

This document outlines the Institute's Infrastructure Maintenance Policy. It outlines the institute's system and procedures for new construction and maintaining and utilizing the physical, academic, and other support facilities-laboratory, library, sports, computers, and classrooms.

2. Policy Statement

"To ensure that all maintenance activities in the Institute are conducted in a planned manner and are consistent with the Vision and Mission of the Institute and in line with prescribed standards/specifications and guidelines."

This Policy forms a part of the MITS's Strategic Plan. It demonstrates the Institute's commitment to planning and constructing new infrastructure and maintaining the existing one in a strategic, cost-effective, environmentally safe, and timely manner in line with the latest norms and standards/Guidelines. The institute complies with the standard Construction and maintenance practices as per the government-approved procedures and guidelines issued from time to time.

3. Scope

The scope of this policy shall cover the following: (i) New construction of buildings/Infrastructure (ii) Repair and maintenance of existing buildings/Infrastructure (iii) Electrical and Mechanical Infrastructure (iv) ICT Infrastructure Departments and Laboratories (v) Sports facilities (vi) Horticulture

4. Introduction

The Institute has established systems and procedures along with dedicated manpower for monitoring and to ensure proper maintenance and utilization of infrastructure like library, laboratories, classrooms, seminar halls, other academic facilities, sports facilities, etc.

5. Types of Maintenance

Maintenance is defined as the work required to preserve or restore buildings and equipment to their original conditions or to such a condition that they can be effectively used for the intended purpose, ensuring the ongoing operation of the campus. The institute conducts the

following types of maintenance:

a) Routine/Normal Maintenance

b) Preventative Maintenance

c) Scheduled Maintenance

d) Corrective Maintenance

e) Complaints/requests from departments, offices, hostels, residents etc.

6. Normal/Routine Maintenance

Cyclic or planned work activities funded through the annual budget, carried out to continue or achieve either the originally anticipated life of a fixed asset (i.e. buildings, equipment etc.) or an established level of performance. Normal/routine maintenance is performed on capital assets such as buildings and equipment to help them reach their originally anticipated life.

7. Preventive Maintenance

A planned and controlled program of periodic inspection, lubrication/oiling, and replacement of components and cleaning is done to extend the useful life of building systems and keep them operating near the design level. Thus, objectives of the preventive maintenance include the following:

- Reducing the occurrence of break downs

- Prevention of dampness, and seepage of buildings

- Reducing energy consumption

- Reducing overall maintenance costs

8. Scheduled Maintenance

Scheduled Maintenance refers to any repair, cleaning, or replacement of components or systems performed on a periodic basis to prevent its malfunction/failure. It is a task in which there is a fixed time interval frame for carrying out maintenance. Scheduled maintenance includes inspections, adjustments, regular service, and planned shutdowns.

9. Corrective Maintenance

It refers to maintenance where in defects have been observed in civil, electrical, ICT infrastructure during its design life or operation. It includes cracks, seepage, plasters, breakdown of equipment etc.

Table below presents the types and classifications of Maintenance in the Institute along with an indicative description of works. All other maintenance related to ICT facilities, library, and other support facilities can also be categorized as per this classification.

Types	Type of Maintenance	Description of Work	Frequency
Civil	Scheduled	Whitewash of staff residence, cleaning of overhead tank, water tank of hostels and sewage treatment plant	Once a year
		Whitewash of all buildings including hostels, classrooms and central facilities	Every 4 to 6 years
		Cleaning of drainage facilities including sanitary and storm sewers	Every year
	Routine/Normal	Cleaning of offices, buildings, streets and washrooms	Daily
	Preventive	a. Earthquake resistant design of new buildings b. Damp proof course c. Waterproofing of roofs	At the time of construction of new buildings
	Corrective	a. Waterproofing and spalling of plaster from ceiling	As and when it is required
	Complaints/ requests from hostels/residents	Repair and maintenance of civil works	As and when request is received (within 24 hours)
Electrical	Scheduled	Diesel Generator sets, lighting, power distribution system, solar panel	Every year
	Corrective	Electric wiring in old buildings Major breakdown in transformers/fire to transformers	Every five years / as and when a situation arises
		Power breakdown because of heavy rain/wind and consequent uprooting of electric poles and cables	
	Complaints/ requests from hostels/residents	Repair and maintenance of electric supply Major breakdown in water supply	As and when a situation arises (within 12 hours)

		Maintenance of facilities like, computers, LAN, internet, Wi-Fi and, MIS, LMS, CCTV security system, LCD projectors	Daily/as and when required
ICT	Scheduled	All AMC-related aspects of ICT infrastructure	Every year
	Preventive	Installation of antivirus/network security software in institute internet facilities	As and when required
	Complaints/ requests from hostels/residents	Repair and maintenance of internet/wi-fi facilities	As and when requested
General Maintenance	Routine	Plantation maintenance of lawn and garden in the institute	Daily
		Sports facilities such as cricket ground, football ground, basketball ground and badminton ground	Daily
		Uprooting of tress	As and when required
		Fire extinguishers	Yearly

Standard procedures have been in place for the maintenance and up keep of various other departments, offices, facilities, and purchase activities connected to infrastructural maintenance. The Store and Purchase Section of the Institute, in collaboration with the Maintenance and other Section In charges, takes care of the purchase-related activities concerned with the maintenance of various sections.

10. Maintenance Section

(i) **Civil Maintenance Cell:** Physical Infrastructure facilities like class rooms, Laboratories, Library, Sports complex, Computer Centre etc., are maintained internally by Civil Maintenance Cell of the Institute. Assistant Engineer, technical staff etc., are appointed in the Institute. The Civil Maintenance Work is monitored by building committee of the Institute. The building committee of the Institute is chaired by one of the Professor from Civil Engineering Department of Institute

(ii) **Electrical Maintenance Cell:** Institute has a separate Electrical Maintenance cell to ensure uninterrupted power supply and maintenance of electrical assets of 33 kv substation, Diesel Generator sets, lighting, power distribution system, solar panel etc. One professor from the Electrical Engineering Department is assigned the responsibility to monitor the EMC (Electrical Maintenance Cell) activities. The Assistant Forman, technical staff, Electricians etc., are appointed in the Institute for smooth functioning of EMC.

(iii) **ICT Maintenance Cell:** ICT maintenance Cell maintain the facilities like, computers, LAN, internet, Wi-Fi and, MIS, LMS, CCTV security system, LCD projectors, ICT based Teaching learning facilities other ICT facilities through dedicated staff, Assistant registrar IT and in-charge ICT Maintenance Cell. The ICT Maintenance Cell of the Institute works under the supervision & guidance of Deputy Registrar of the Institute.

(iv) **General Maintenance Cell:** The General maintenance cell is established to keep the campus hygienically clean, drinking water supply through dedicated staff. The maintenance of equipment's for water supply sets, sewage treatment etc. are undertaken as per standard maintenance schedule. The General Maintenance Cell is working under the supervision of Deputy Registrar of the Institute.

Separate Complaint registers are maintained for various services like electrical, plumbing, housekeeping etc. both for academic and hostel buildings. The e-system (through email) is functioning in the Institute for fast service.

- Minor work is carried out by labour appointed on labour rates

- Major maintenance work is carried out on contract through Annual Maintenance Contract System/tendering procedure/empanelment of service providers.

- All repair, maintenance and upkeeps of labs are maintained by their lab incharges/technical staff.

- The utilization reports are maintained by In-charge Laboratory, HoDs, In-charge Maintenance Cell.

- The Advanced and Expensive Equipments are maintained through Annual Maintenance Contract (AMC)/ empanelment of service providers.

- Equipment, instruments and appliances involved in the teaching-learning process are maintained through internal technical staff, service providers and AMC.

- The procurement of services through AMC, parts/components are procured through well-established mechanism of purchase under the monitoring of Registrar/Deputy Registrar.

- Periodic information/requirement of maintenance is submitted by HoDs/Section Incharge to concerning Maintenance Cell.

- Prior to commencement of new academic semester all teaching learning facilities including hostels and sports are maintained by concerning Maintenance Cell.

- Each laboratory has one faculty as Professor in-charge lab, a Lab Assistant and attendant. Lab in-charge is responsible to maintain and upgrade the laboratory with necessary equipments from time to time to cope with change in the curriculum. Stock verification (Physical Verification) is carried out to verify working/nonworking/missing equipments etc. Yearly Preventive maintenance and performance monitoring is carried out by concern lab--staff. Every laboratory staff keeps the record of utilization of equipments, computers and other required material for experiments. All the safety equipments are installed in the laboratory to avoid any kind of hazard.

- The Institute Central Library is maintained by the Librarian with dedicated library supporting staff. The library services like MIS, digital section, reference sections, Books issuing section, equipments and other library facilities are maintained regularly through dedicated staff. Librarian with supporting staff ensures the availability and utilization of instructional material in teaching and learning process. At end of the Academic year, the stock verification is done. Librarian is responsible to prepare the report on the same and utilization of books by the students and staff. Procurement of books as per the requirement is initiated through library committee by inviting the requirement of books from various departments this is then processed following the procurement procedure.

- The fire safety equipments are installed at various locations as per standard Operating Procedure on safety and hazards.

- Various sports faculties like grounds, gymnasiums, indoor game facilities, equipments are regularly maintained by Sports Officer. Sports Officer of the institute looks after the sports facilities and the activities. The sports equipments are issued to the students as per the schedule of the events. If any equipments get faulty sport officer submits proposal for maintenance. Preventive maintenance measures are taken in time. Sport Officer is responsible for keeping the record of utilization of sport Facilities, activities held, awards/achievements of the students etc.

- The IT coordinators are appointed in various departments to maintain the ICT facility in

the department. The IT coordinators through HoDs are also responsible to coordinate with ICT Maintenance Cell of the Institute to maintain effective ICT facility. Technical Aids such as Multimedia Projectors, Laptops, desktops, printers, Wi-Fi, LAN etc. are maintained by IT Cell through service provider/ AMCs.

- Class rooms are allocated to all departments along with necessary ICT tools. The class rooms are utilized as per the time table of the department. The class rooms are cleaned on daily basis monitored by institute supervisor. HODs and Class coordinators also monitor the cleanliness and ensure that the cleanliness is maintained in the class rooms.

11. Departments and Maintenance of Laboratory Equipment

The Institute laboratories are well equipped with state-of-the-art equipment and facilities with the proper stock maintenance. Each of the laboratories is assigned a Laboratory In-charge who is responsible for submitting maintenance/upgradation related to the proposal. The respective In-charges, technical staff, and lab assistants are responsible to maintain the laboratory equipment and general up keep of the laboratories. Technical and support staff of respective departments monitor effective utilization of the laboratories. Stock registers and asset registers are maintained by the departmental office in consultation with lab In-charges. Breakage and repair if any, are reported to the Head of Department or the faculty-in-charge as the case may be and suitable measures are taken for speedy functioning of the equipment. For the maintenance activities, which are not possible to be taken-up in-house, external equipment manufacturers are called or agreements/AMCs are signed with the relevant agencies. Depending upon the need, an annual maintenance contract (AMC) is carried out for high-end equipment, servers, and computers. The repair and maintenance of other electronic gadgets like computers, projectors, interactive smartboards, printers, and photocopiers are maintained by respective departments. All Classrooms with furniture, teaching aids, and laboratories are maintained by the respective department staff and attendants and supervised by the respective Head of the Department.

12. Maintenance of ICT Facilities

The ICT facilities (in terms of campus-wide network infrastructure, wi-fi, LAN, and Servers) are maintained by the System Analyst. The System analyst is supported by programmers and

computer operators. The support staff maintains the computers, servers, Campus Wi-Fi, and other internet-related issues. The annual maintenance of computers including the required software installation and antivirus renewal/upgradation is carried out under the overall control of the System Analyst. Based upon the complaint received from departments and administrative offices of the institute, the internet-related issues are looked after/resolved by the computer operators. Maintenance activities pertaining to the IT infrastructure including Computer Centre, Internet lease lines, Wi-Fi facility, MOOCS development Studio, Media Centre, Institute Website, Institute ERP System, IT enabled Classrooms, Seminar Halls, Auditoriums etc. are managed through well-defined IT Policy of the Institute.

13. Maintenance of the Central Library

The Institute has a Central Library apart from the departmental libraries developed in every department for the purpose of keeping program-specific books. In addition, the Institute has a digital library through which faculty and students can access books, journals, and other learning resources in online mode through computers available in the library and various departments. Central Library is looked after by the Librarian, and other supporting staff for the maintenance and enrichment.

14. Maintenance of the Central Workshop

For inculcating various skills in the students, the Institute has a Central Workshop where facilities for various shops like Machining, Carpentry, Fitting and Bench Working, Black Smithy, Foundry, Welding, and Sheet Metal are available. Every shop in the workshop is equipped with modern machines and tools. Various activities of the workshop are managed by a dedicated team of Workshop Superintendent, Asstt. Workshop Superintendent, Jr. Engineer, Foremen, Instructors, Mechanics, and other Staff.

15. Maintenance of Sports Facilities

To Institute provides sports facilities among the students under the umbrella of Dean Student Welfare where a sports officer takes care of all the sports activities and facilities in the Institute. Maintenance of grounds is under the supervision of Civil Maintenance Cell of the Institute. Procurement of Sports facilities is done as per requirements through sports officer.

16. Maintenance of Hostels

All hostels have necessary amenities like individual cots, study tables, chairs & wardrobes with a locking facility. The hostel is maintained well with a team of our Maintenance staff. The hostel is provided with 24 hours power backup with a good drinking water facility. The other facilities available include a mess, a common room with a TV. Students are provided with wi-fi internet facilities in the hostel. Wardens and caretakers are appointed for the looking after the hostels. Repairing on regular basis is done for furniture, doors, windows, fan, lights, water purifiers, and electrical points. Regular cleaning of hostels, washrooms, kitchens, corridors, and surroundings is done. Cleaning of overhead water tanks, drainage system, and Septic tanks are carried out on regular basis.

17. Campus Cleanliness

Cleaning of the campus areas including the academic and administrative buildings is performed daily in the morning before the regular classes begin with the help of regular and outsourced staff members.

18. Annual Stock Checking

Annual stock checking of furniture, lab equipment, stationery, ICT facilities, and sports items in all departments/sections of the institute is carried out through the process of Physical Verification of Stocks and equipment auctioned, if not in use/or have completed their useful life.

19. Roles and Responsibilities

The role of the Building Maintenance & Construction Committee of the Institute is to carry out the planning and maintaining of Civil Infrastructure in the Institute and processing the proposals from the Infrastructure Committee of Board of Governors of the Institute for the final approval.

For effective implementation of the institute's Infrastructure maintenance policy, the roles and responsibilities of the main stakeholders shall be as under: Construction and maintenance Incharge, ICT maintenance Incharge, Electrical maintenance Incharge, and Deputy Registrar.