

# MAINTENANCE POLICY



**KGiSL** Institute of Technology

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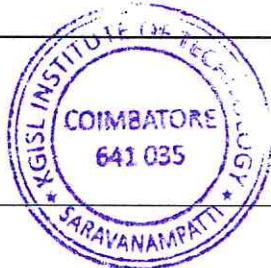
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## Maintenance Policy and Procedure Manual

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## 1. INTRODUCTION

The College Maintenance Committee of KGiSL Institute of Technology is responsible for managing the maintenance function in the most cost effective manner possible while maximizing the useful life of units and properties and striving to provide the best service to the users. The following policy statements are designed to establish the structure of an effective and efficient maintenance system. The overall objective of the Maintenance is to maintain, throughout its expected useful life, the interior and exterior of college buildings, the grounds, and the roadways, and all fixed and moveable equipment through preventive maintenance and repairs.

## 2. MAINTENANCE POLICY GOALS

1. Perform maintenance on a periodic basis.
2. Provide functional facilities that (a) meet the institute requirements; (b) have an environmentally acceptable atmosphere for students, faculty, and staff; and (c) ensure the health and safety of all personnel.
3. Identify potential problems early within the context of the preventive maintenance system so that corrective action may be planned, included in the budget cycle, and completed in a timely manner.
4. Follow an orderly program so that administrative costs are minimized and the workload for personnel is maintained at a relatively constant level.
5. Conserve energy and resources by ensuring maximum operating efficiency of energy consuming equipment and systems.
6. Maintain credible relations with users by providing well-maintained facilities and information on preventive maintenance activities.
7. Identify and implement possible improvements that will reduce costs, improve service, and result in more efficient operation.

In order to provide a safe, healthful, and secure environment, the institute requires the use of two types of maintenance: preventive, and breakdown.

1. Preventive Maintenance Policy
2. Breakdown Maintenance Policy



  
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### 3. PREVENTIVE MAINTENANCE POLICY

#### 3.1 PURPOSE OF THE POLICY

The goals of preventative maintenance are to reduce the likelihood of hardware failures, extend the useful life of the system, minimize system crashes caused by outdated drivers and other software problems, secure the system against viruses and other malware, and prevent data loss.

#### 3.2 PROCEDURE:

##### 3.2.1 MAINTENANCE OF CLASSROOMS AND TUTORIAL ROOMS:

Classrooms and Tutorial rooms with furniture and teaching aids are maintained by the respective department staff and supervised by the respective Head of the Department. The Heads of Departments report to the administration periodically for all the maintenance works. Students optimally utilize all classrooms during the daylong working hours and are also mentored to upkeep the furniture. The following services are in the workforce for upkeep of classrooms and tutorial rooms.

| S. No. | Service   | Activity Schedule | Responsible Person |
|--------|---|-------------------|--------------------|
| 1      | Cleaning of Classrooms and Chalkboards                                      | Daily             | Housekeeping       |
| 2      | Floors dust mop, wet mop, High and low dusting                              | Daily             | Housekeeping       |
| 3      | Emptying wastebaskets   | Daily             | Housekeeping       |
| 4      | The working condition of a computer system, projector, and projector screen | Daily             | Class Advisor      |



  
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### 3.2.2 COMPUTER PROGRAMMING LABORATORY:

Laboratory audit is conducted by deputed faculty members from the department in the frequency of every semester once and based on audit report actions taken.

| S. No. | Name of the Equipment | Preventive Maintenance   | Activity Schedule     |
|--------|-----------------------|--|-----------------------|
| 1      | Computers             | Stock verification is conducted every year in all laboratories to verify the stock | Once in a Year        |
| 2      | Computers             | Maintenance of computers is taken care by ICT                                      | Whenever it is needed |
| 3      | Open-Source Software  | Updating and installing the new version of Software on a requirement basis.        | Once in a Semester    |
| 4      | Licensed Software     | Renewal of license for the Software and updating it to the latest version.         | Whenever it is needed |

1. All the PCs and related equipment like printers, scanners, etc. are backed by UPS.
2. Back up of files in the computers on a regular basis.
3. Hard disc clean-up and defragmentation utilities regularly.
4. All computers are checked for applications at the commencement of semester.
5. Maintenance of computers, AC, Printer and other equipment for every 6 months or as andwhen required.
6. Software license renewal is done as per the license period.
7. Ensuring proper shutdown of all computers.
8. All the computers in the laboratories are provided with high speed internet connections.



  
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### 3.2.3 ELECTRONICS AND COMMUNICATION ENGINEERING LABORATORY:

Students are given instruction in handling the equipment / system / component before the conduct of experiment during their lab sessions so as to maintain equipment / system / component in good condition and the maintenance of labs is depicted as follows

1. Regular checking of Meters, Cathode Ray Oscilloscope (CRO) and Function Generator (FG) are being carried out and calibration is also done for every year.
2. Components are tested using Digital Multi Meter (DMM) and faulty components are replaced.
3. Regular checking of Dual Power Supply, Digital Storage Oscilloscope (DSO) and FG are done for every month by Lab Technicians.
4. Linear & Digital ICs are checked using IC Testers and faulty components are replaced.
5. Regular checking of Digital Trainer Kit, Linear and Digital Power Supply will be done frequently.
6. Regular checking of ICs in trainer kits 8085, 8086 and 8051 are done frequently. Then faulty ICs are replaced.
7. All the PCs are backed by UPS in DSP lab.
8. Maintenance of computers, AC and DSP kits are done frequently.
9. Turning off all computers by selecting the shutdown option on the desktop.
10. Maintenance of computers, AC, Printer and FPGA trainer kits are done frequently.

### 3.2.4 MECHANICAL ENGINEERING LABORATORY:

All the labs in the department are very well equipped with all the equipment/instruments/machines required to conduct every experiment given in the curriculum and beyond.

All the labs are equipped with good technical support staff available during working hours and beyond (as and when required).

1. All electrical equipment's and installations are checked at start of semester.
2. All mechanical & electrical machines are inspected at start of every semester.
3. Fire extinguishers are recharged after expiry date.
4. All computers are checked for applications at start of semester in CADD lab.



  
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5. License renewal is done for the software as per the license period in CADD lab.
6. Water sump is cleaned at the regular interval in Thermal Lab.
7. All measuring instruments are inspected at start of every semester.
8. Calibration of equipment is done every academic year.

### **3.2.5 MAINTENANCE OF INFRASTRUCTURE (BUILDING):**

1. Building maintenance includes construction work or modifications, civil repairs in buildings, other repairs and maintenance of internal roads, plumbing, pest control, colouring and painting for building structures.
2. It will monitor Estate Supervisor, cleaning of water tanks, and sanitary arrangements.
3. Small repairs and maintenance is carried in-house whereas contractor services are obtained for major maintenance requirements within the campus.
4. Annual inspection is carried out for Fire Safety by the Fire Service Department and issues fire safety certificate.


### **3.2.6 ELECTRICAL SYSTEMS MAINTENANCE:**

1. Weekly monitoring of electrical systems such as tube lights, fans, DG set energy backup system, solar energy illumination system, UPS, and batteries is carried out and its status is communicated to the admin office.
2. The suppliers/service providers are approached in case of any major fault.
3. Major electrical equipment is covered under Warrantee period or Annual Maintenance Contract (AMC) by the suppliers.
4. Adequate number of UPS are installed in every block to ensure uninterrupted power supply for all computers.

### **3.2.7 Library:**

1. The maintenance of library is taken care by Librarian and the supporting staff.
2. Internal periodic audits are carried out in the library for maintaining wellness of the books.



  
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3. Frequent interactions are made by the librarian with the students and faculty to know the short falls and take necessary action to overcome them.

### **3.2.8 OTHER FACILITIES:**

1. The drinking water facility, RO plant, which provides 24 X 7 drinking water facility, is maintained with periodic testing of the quality of water.
2. Admin office is to monitor the drinking water facility and RO plant with the help of Estate Supervisor.
3. Adequate man power is employed to maintain cleanliness of the campus, Classrooms, Staff rooms, Seminar halls and Laboratories, wash rooms and rest rooms for good ambience.
4. The Green Cover of the campus is well maintained by full time gardeners as well as contractual labour.
5. The campus security is monitored by the IT team through surveillance Cameras and is maintained by a supplier under AMC.
6. The Campus has Canteen facility where subsidized food is provided to faculty, staff and students.
7. The maintenance of the canteen is the responsibility of canteen contractor under the supervision of food committee and admin office.

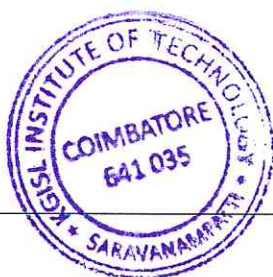
## **4. BREAKDOWN MAINTENANCE POLICY:**


### **PURPOSE OF THE POLICY**

Breakdown maintenance is maintenance performed on a piece of equipment that has broken down, faulted, or otherwise cannot be operated. The goal of breakdown-maintenance is to fix something that has malfunctioned.

### **PROCEDURE**

KGiSL Helpdesk portal provides 24/7 support in maintaining support logs, categorizing, prioritizing, tracking, and routing of the changes and incidents. Requisition for the new purchase, approval from the facility team, installation, and servicing all are tracked by the Helpdesk portal as shown in Figure 6.1.



  
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The following stakeholders can manage and utilize the Helpdesk portal for maintenance and any new purchase for the institution.

1. Administrative Officer
2. Head of the Department
3. Lab Technician
4. ICT
5. Electrical Department
6. Facility Department



The screenshot shows the login interface for the KGISL Helpdesk Ticket Portal. At the top, the KGISL logo is displayed. Below it, the text 'Helpdesk Ticket Portal' is visible. The main heading is 'ATS'. There are two input fields: 'AD User Name or Employee Code' and 'Password'. Below these fields is a 'Login' button. At the bottom, it says 'Powered by KGISL-GSS'.

**Figure 1: Helpdesk Ticket Portal**



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#### 4.1 SERVICE AND MAINTENANCE PROCESS

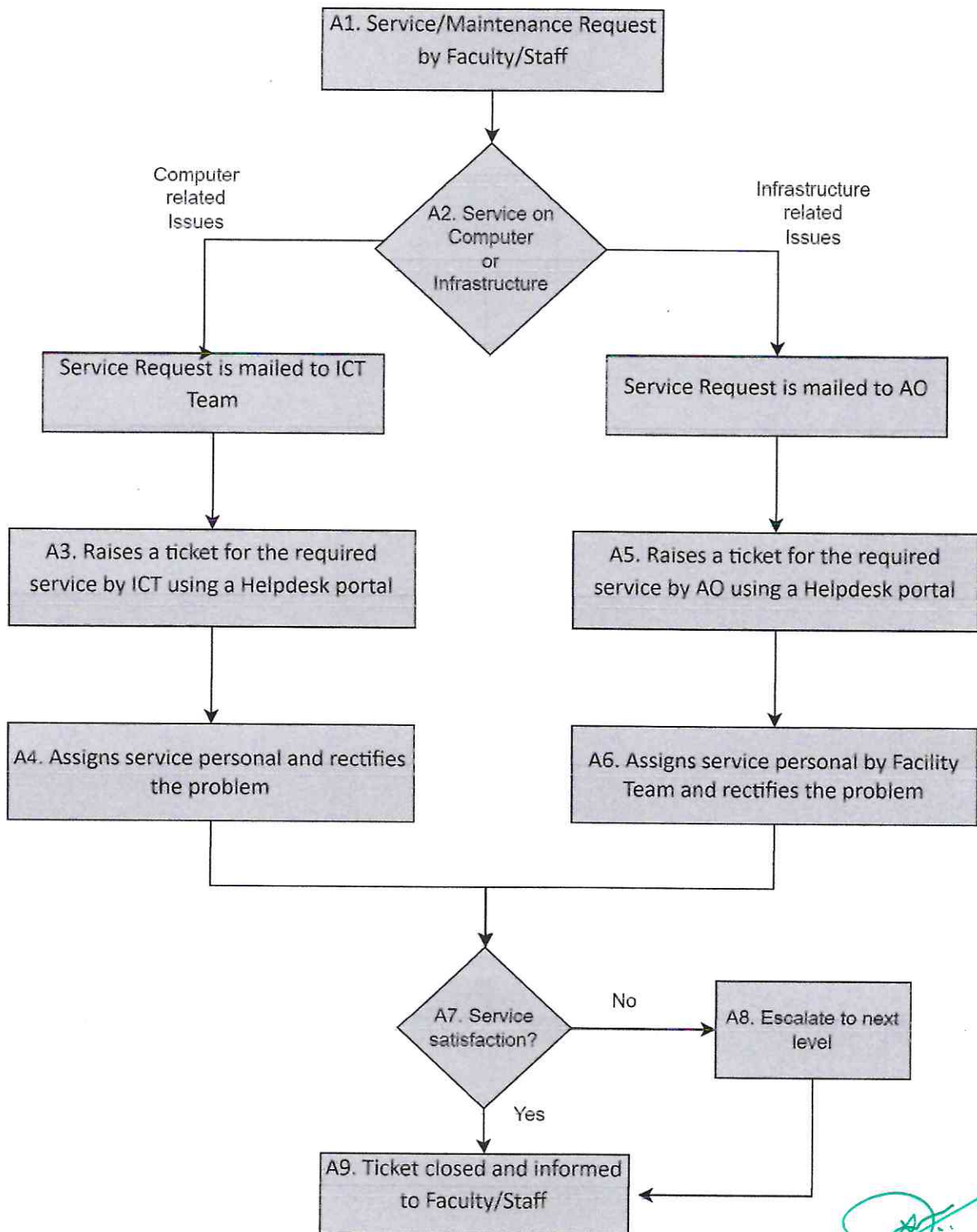
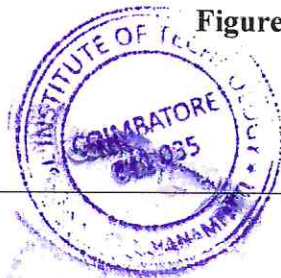


Figure 2: Service/Maintenance Process



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**Activity 1 (A1):** If there is any service/maintenance required, it is requested by the lab incharge.

**Activity 2 (A2):** Based on the service required request will be sent to either ICT team or AO through email.

**Activity 3 (A3):** If computer based service is required ICT team will raise a ticket through Helpdesk Portal for the service.

**Activity 4 (A4):** From ICT team service person will be assigned to rectify the problem.

**Activity 5 (A5):** If infrastructure based service/maintenance required AO will raise a ticket through Helpdesk Portal to the Facility Team.

**Activity 6 (A6):** From facility team service person will be assigned to rectify the infrastructure based problems.

**Activity 7 (A7):** Lab incharge will check and confirm the status of requested service and inform the service team.

**Activity 8 (A8):** If there are any deviations in requested service/maintenance that should be refined and fixed by the service team based on lab incharge observation.

**Activity 9 (A9):** After successful completion of service/maintenance ticket will get closed and same informed to lab incharge and HoD



  
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## 4.2 SERVICE MAINTENANCE FOR HARDWARE EQUIPMENT

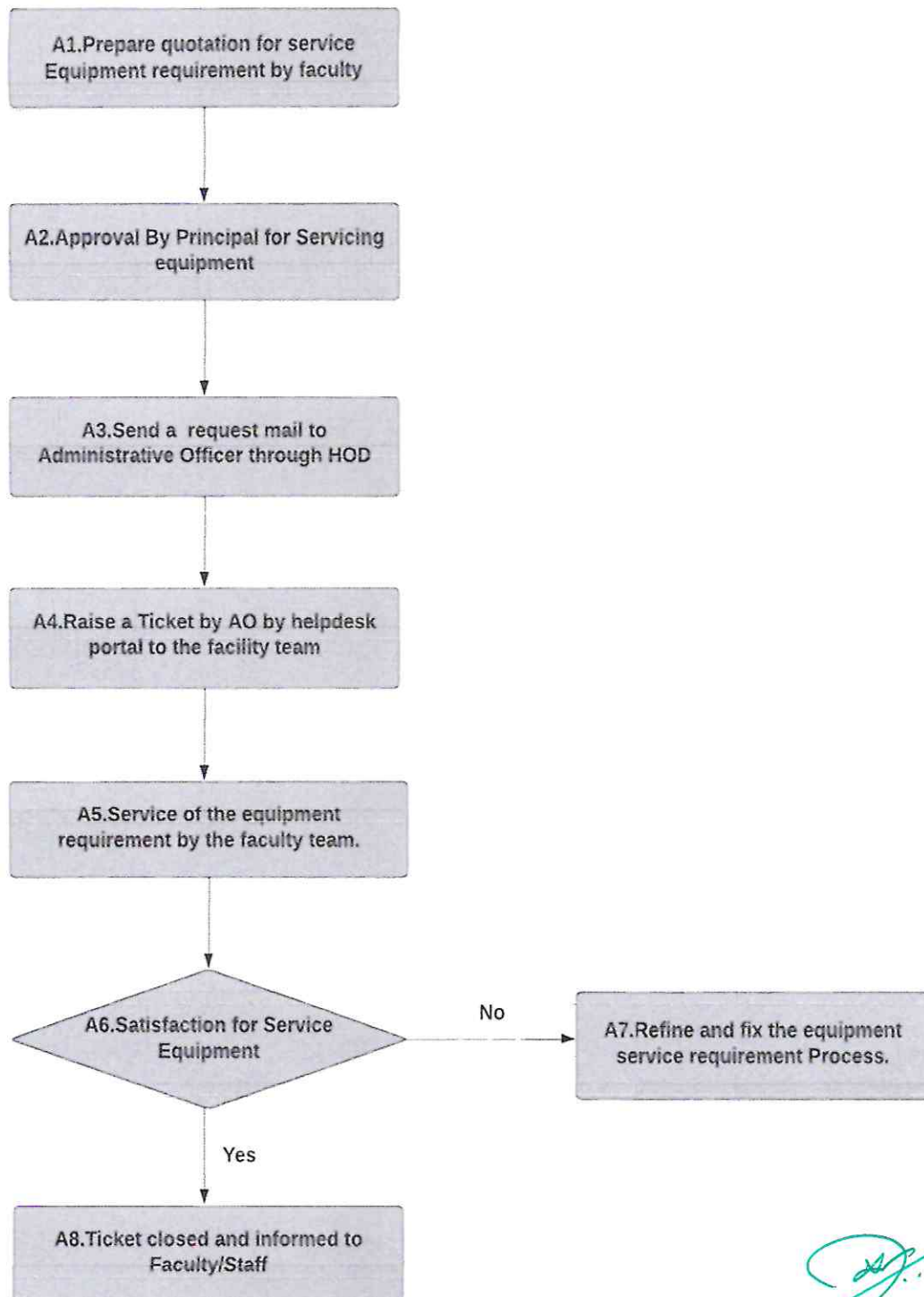


Figure 3: Service Maintenance for Hardware Equipment



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**Activity 1 (A1):** If there is any service/maintenance required, it is requested by the lab incharge/Faculty. Based on the service request prepare a quotation for service equipment by the faculty

**Activity 2 (A2):** Approval by principal for the equipment service requirement

**Activity 3 (A3):** After the Principal approval the requirement will be sent to the Administrative Officer from the Head of the Department

**Activity 4 (A4):** Administrative Officer will raise a ticket through Helpdesk Portal to the Facility Team.

**Activity 5(A5):** Facility team will process the service requirement based on the Administrative Officer request.

**Activity 6 (A6):** Lab in charge will check and confirm the working status of serviced equipment by the faculty and inform the facility team.

**Activity 7 (A7):** If there are any deviations in serviced equipment process that should be refined and fixed by the facility team.

**Activity 8 (A8):** After successful service of the requirements ticket will get closed and the same is informed to HoD, Principal and AO.



  
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