

GNANAMANI COLLEGE OF TECHNOLOGY

(An ISO 9001 : 2015 Certified Institution)

(Approved by AICTE, New Delhi & Affiliated to Anna University, Chennai)

NH-7, A.K.Samuthiram, Pachal(PO), Namakkal – 637 018

Procedure for Maintenance

The campus holds well established standard systems and procedures for maintaining the physical, academic and support facilities that are governed by the supervision of faculty in-charges in college level. They ensure the various aspects of utilization and maintenance of the physical, academic and support facilities such as maintenance of buildings, laboratories, classrooms, library, computers, etc.

The proper function of equipment in all laboratories is ensured in every year by the lab technicians. Stock register is maintained in all laboratories and audits are conducted by stock verification committee to check the availability and working of the equipment every year.

First aid kits are kept in all major laboratories and department to meet any eventuality. Fire extinguishers of adequate capacity and numbers are provided in eye catching spots in the college buildings especially in all laboratories. Fire extinguishers are well maintained and checked periodically and refilling is done well before the due date. The general maintenance procedures followed in the laboratories are as follows.

1. Lab stock register is maintained and updated by the lab faculty in-charge and technicians.
2. Stock verification is verified and inspected by the Heads of the Department.
3. Proper functioning of equipment in all laboratories is ensured in every semester by the lab technicians.
4. Breakage or repair if any, are reported to the Head of the department and Lab faculty in-charge and appropriate measures are to be taken for quick functioning of the equipment.
5. Floor cleaning of labs are done on a daily basis by sweepers.
6. List of the experiments are pasted in the laboratories for the reference of students.
7. Students are given proper instructions to work with the equipment efficiently.
8. Computer Lab assistants under the supervision of the System administrator maintain the efficiency of the college computer and accessories.
9. All the PCs and related equipment like printers, scanners, etc., are backed up by UPS in regular basis.
10. All the places are monitored by the CCTV surveillance system.

The maintenance of laboratories for various departments is furnished below.

COMPUTER PROGRAMMING LABORATORIES

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 and when 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.

ELECTRICAL AND ELECTRONICS ENGINEERING

Daily maintenance:

1. Lab technician checks the working condition of the equipment/systems on daily basis.
2. Apparatus required' form is maintained in each lab to track the breakage and working of equipment's.
3. Everyday cleaning of equipment and work tables are done by the lab technicians.
4. Floor cleaning of labs are done on a daily basis by housekeeping department of the college.

Weekly maintenance:

1. Floor mopping of labs are done twice a week by housekeeping department of the college.
2. The proper working of all the equipment is checked in all the laboratories with the help of the lab assistants and corrective measures are carried out.

Monthly maintenance:

1. The monthly maintenance report is maintained for all the laboratories by the concerned lab in charges.
2. Once in three months UPS in charge checks the water level, voltage level and backup of the UPS.

Yearly maintenance:

1. Maintenance of battery & UPS in all the laboratories is carried out quarterly.
2. Calibration of equipment are done and a report is maintained.

Preventive maintenance:

1. The working conditions of the equipment are periodically checked.
2. The students are given instruction in handling the equipment before doing the experiments.
3. Laboratory manual is given to the students which include list of experiments and the procedure of doing the experiments.
4. Stock register is maintained in laboratories and audits are conducted by stock verification committee to check the availability and working of the equipment.
5. Suitable thickness of the wire based on current rating is used in the fuses to avoid the malfunctioning.
6. The working condition of passive elements and transistors is checked by using multi-meter and LCR Meter in all laboratories.
7. UPS back up is provided for all system based laboratories.

Breakdown maintenance:

1. Minor repairs are carried out by the lab technicians. When a major repair occurs, service report is obtained from industry person. Approval for service of equipment is obtained from concerned in charges.
2. Service register is maintained in each laboratory.
3. Breakdown maintenance of the personal computer is done by concerned in charges.

Ambience:

The infrastructure and added facilities in the laboratories create the right ambience for the students to conduct experiments in the laboratories.

1. Spacious and well-furnished laboratories with good ventilation and lighting facilities are available.
2. All laboratories are equipped with essential equipment to meet the requirements of the curriculum.
3. For maintaining the overall good ambience, weekly cleaning of equipment and 5S audits are carried out with regular inspection by teams.
4. Equipment specification for all machines is displayed.
5. Identification Number for each equipment is marked on the devices/Equipment/furniture's/tables.
6. Working models and devices in the form of charts are displayed in the laboratories.
7. Do's and Don'ts are displayed in all the laboratories.
8. List of experiments are displayed in all the laboratories.

9. The laboratory manuals prepared are available in both soft and hard copies.
10. Laboratories are utilized beyond the college hours for the convenience of the students and the faculties.

MECHANICAL ENGINEERING

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.
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.

AMBIENCE:

1. Proper Flooring.
2. Proper Ventilation.
3. Proper lighting and Ceiling fan provided for easy working.
4. High quality machines and equipment are used.

CIVIL ENGINEERING

All the labs in the department are very well equipped with the equipment /instruments/ machines required to conduct precribed 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 computers are checked for application at start of semester in CADD lab.
2. License renewal is done for the software's as per the license period in CADD lab.

3. Calibrations of dial gauges are done for every academic year.
4. The Equipment's are tested for its working condition in starting and mid of the academic year.
5. Fire Extinguishers are duly maintained.
6. The equipment are periodically serviced and maintained.
7. All the equipment is tested before going to work in field.
8. Machines are inspected at start and mid semester
9. The painting to the equipment done to prevent from corrosion.
10. The machines were run frequently to check the working condition.
11. Expiry dates for Chemicals were checked periodically.

ELECTRONICS AND COMMUNICATION ENGINEERING

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 for 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.

Library usage guidelines

General maintenance is carried out with help of Library Assistants.

1. Books are classified by using DDC Classification.
2. Library Entry register is maintained by Electronic gate.
3. The library book transaction is done using Dolphin software.
4. The library annual stock verification is maintained in every year.
5. As per the recommendation of faculty and HODs, the new technical books are also updated in the library periodically.
6. Lending books due dates are monitored regularly.
7. Any damage in the return of books, fine amount will be collected from the students and faculties.
8. After reading periodicals and newspapers are kept in appropriate places.
9. Library staff provides the login ID for access to e-resources.
10. Library cleaning work is done by daily basis with support of library assistant and sweepers.
11. We conduct Library user education program to create awareness of library resources.
12. Book Binding is done occasionally.

Bus Maintenance

1. The driver checks the tire pressure at the start of vehicle.
2. The driver inspects the lightbulbs throughout the vehicle.
3. The cleaner wipes and clean the seats with a damp rag or cloth.
4. The driver checks the fuel level of the bus at the start.

Sports Maintenance

Indoor and Outdoor sports Games Equipment, Courts, Playground and Gym are maintained by Physical Education Director and the Sweepers of the college. The damaged Sports materials are immediately replaced with new ones.

1. The grounds are maintained at regular intervals by the rollers.
2. The grounds are marked periodically.
3. The gym equipment is cleaned and lubricated properly.
4. The sports equipment is checked and serviced at regular intervals by physical education director.