

ERODE SENGUNTHAR ENGINEERING COLLEGE

(An Autonomous Institution)

Approved by AICTE, New Delhi, Permanently Affiliated to Anna University- Chennai, Accredited by National Board of Accreditation (NBA), New Delhi & National Assessment and Accreditation Council (NAAC), Bangalore with 'A' Grade PERUNDURAI -638 057, TAMILNADU, INDIA.





Maintenance Policy



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Maintenance Policy

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 semester by the lab technicians and minor repairs such as installing replacement parts are carried out by them as and when they are needed. When there is a major repair work, the purchase committee handles the service and maintenance request appropriately by placing an order to the corresponding engineering experts during summer vacation. 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 ISI mark 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. The lab faculty in-charge and technicians maintain the lab stock register.
- 2. Stock verification is verified and inspected by the Heads of the Departments.
- 3. Old and out-dated equipment are discarded by following a standard procedure.
- 4. Before the startups of every semester the lab technicians ensure the proper working of the laboratory equipment.
- 5. 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.





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- 6. Floor cleaning of labs are done on a daily basis by sweepers.
- 7. List of experiments are posted in the laboratories for the reference of students.
- 8. Students are given proper instructions to work with the equipment efficiently.
- 9. Under the supervision of the System administrator, the computer lab assistants maintain the efficiency of the college computers and its accessories.
- 10. All the Computer Lab related equipment are backed up by the UPS in regular basis and maintenance is periodically done.
- 11. At the beginning of every semester all the computers are installed with required software and licenses are renewed periodically.
- 12. Students must wear the laboratory uniform and shoes during every laboratory session to ensure the safety.

Maintenance Procedures

The Institution has appointed staff for maintaining facilities such as Buildings, Transport, Electrical, Housekeeping, Garden etc. Regular cleaning of College floors, classrooms, laboratories, equipment, and rest rooms are being done by the housekeeping team under the supervision of a floor in-charge. Stock verification and up-keeping of the equipment in all labs and other facilities is done at the end of every year by Lab Incharge and the report is submitted to the Principal through the concerned department of HOD's for further action.

Laboratory maintenance

Regular Upkeep and maintenance of equipment as well as repair of equipment is important for proper functioning of any engineering laboratory. As soon as the complaint is received with details, (including Guarantee Period etc.) following procedure is followed. If the equipment/machinery is to be serviced





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during the warrantee period, the supplier of the equipment/machinery will be intimated about the repair and it will be serviced either in- house or in the supplier premises based on the nature of defect. After warrantee period if the equipment/machinery demands service, the technical staff attached to the respective laboratories service the equipment/machinery to the extent possible. If repair cannot be done by technical staff of institution, then it is repaired by the persons outside the organization. If no items are required to purchase for repairing the equipment, the equipment is repaired immediately. If items are required then a proposal is sent to the purchase incharge through proper channel (concerned HOD). After the items are purchased the equipment will be repaired by the respective person. The remuneration bill (cost of Maintenance) will be sent to the accounts department through proper channel.

Library Maintenance

- Strict silence should be observed in the library.
- Only students with ID card are allowed to enter the library.
- Students without uniform are not allowed to enter the library except on Wednesdays.
- Books and other materials should not be brought to the library.
- The library staff members are always ready to help the students. Students may request them for any information/materials they needed.
- Own Books, journals should be handled with care, the users will be responsible for any damage/disfigurations caused and pay the fine.
- Students can borrow 3 books at a time using ID cards.
- Library users are not permitted to use others ID cards while charging or discharging their books.
- Ensure the conditions of the book, before you get the same or the book issued.





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- Do not write, mark/underline or sign on the library books.
- The borrowed book should be returned on the date marked on the label of the book/card. Absence from the college will not be an excuse. More than one renewal is not allowed.
- A fine of Rs.1/- will be charged per book per day from the defaulters.
- Loss of library books should be reported to the librarian immediately. Books lost or damaged will
 have to be replaced. Reference books, journals, magazines and newspapers should not be taken
 out of the library.
- The library timings and other details will be displayed on the library notice board from time to time.

Civil Maintenance

Maintenance of civil works is needed for getting uninterrupted services which facilitate smooth and efficient functioning of the institution. The maintenance of civil works include Maintaining cleanliness and sanitation in the campus.

Repair of frequently damaging components like window glasses, plumbing components, sanitary ware, floor tiles, doors, classrooms, benches, boards, furniture, faculty rooms etc Internal roads maintenance.

• Water supply and overhead/underground water tank maintenance

Course of action:

- A request comprising the problem, through HOD and the Principal, has to be received.
- As per the stock availability the problem is attended and resolved
- If any material is required to purchase, to get the approval from the principal for purchase of the same





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- If the cost of the requirement exceeds Rs.10,000/-, approval must be obtained from the management.
- If the work involves more financial support, quotations are invited from the vendors. Preparation of the comparative statement and placing purchase order.
- On receiving material, resolving the problem.

Repairs and maintenance of Computer / Network (LAN) / Projector / UPS / WiFi:

- Service / repair request is placed to System Maintenance Cell.
- The request will be processed by Incharge.

Computer Science and Engineering

The hardware, software and other accessories are properly maintained at specified periodicity. The following maintenance activities have been performed

- Installation of software required for the students and faculty
- Computer Systems and Printers trouble shooting
- Daily and once in fortnight preventive maintenance of equipment in the laboratory
- Virus scanning and removal of unwanted files on regular basis
- Cleaning of System and other equipment on regular basis

Preventive Maintenance

- Removal of Unwanted files.
- Virus scanning and cleaning





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- Verifying the water level of the batteries
- Verifying working condition of the AC and Stabilizer

Break down maintenance

- The system which is not working are intimated to the System Maintenance cell and details are recorded in the separate register
- The Systems are repaired and return back to the respective location by the System Maintenance Cell.

Overall Ambience Maintenance

- State of the art computing facilities with sufficient power backup facilities
- Excellent working environment with comfortable seating
- All the laboratories are air-conditioned

Safety Measure

- Proper Shutdown of the Computer System
- Switching off the equipment in case of any malfunctioning.
- Use of CD, DVD, Pen Drive/External Devices are allowed only with permission
- Not to touch the cable of the system which is in log on condition
- Handling equipment with care.

In addition, the following general safety measures are also ensured.

• All the equipment are connected with UPS.

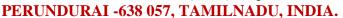




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- Air-conditioning to maintain humidity.
- First Aid Kit available in all the laboratory. The Quantity and expiry of the medicines are checked by the lab technicians
- Fire Extinguishers are available in all the laboratories. The laboratory in-charges and lab technician are provided with proper training in handling fire extinguishers
- Fire wall is deployed in the College to protect the network from the unauthorized access.
- File servers are maintained to access resources with credentials.
- Facility for Accountability and Traceability of network access is available.
- Comfortable Seating arrangement
- Eye exercise to remove fatigue

Electronics and Communication Engineering

During Lab sessions before conducting the experiments, the students are given proper instructions about the handling of equipment, system and components.

The maintenance of Labs is as follows

- 1. Components are tested using Digital Multi Meter (DMM) and the identified faulty components are replaced.
- 2. Regular checking are Meters, Cathode Ray Oscilloscope (CRO), Dual Power Supply, Digital Storage Oscilloscope (DSO) and Function Generator (FG) are being carried out periodically.
- 3. Linear and Digital IC's are tested by using IC testers and replaced every month.





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- Regular checking of Digital Trainer kit, Linear and Digital Power Supply is done for every month.
- 5. IC trainer kits and ICs are checked every two weeks once and faulty ICs are replaced.
- 6. All the PCs are backed up by UPS.
- 7. Hard disk clean up and defragmentation utilities are done regularly in system lab.
- 8. Maintenance of Computers, Printers, AC, DSP kits, VLSI kits and Embedded kits are done once in a month.
- 9. The computers are taken back-ups on regular basis.
- 10. The Communication related equipment are periodically checked every month.

Civil Engineering

All the labs in the department are well equipped with all the equipment's/instruments/machineries 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) The equipment in the laboratories is maintained by the lab technician with advice of Lab Incharge and HoDs. The stock register is maintained by the Lab technician supervised by lab Incharge and HoDs of the departments.

1. All computers are checked for application at start of semester in CADD lab.





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- 2. License renewal is done for the software's as per the license period in CADD lab.
- 3. The equipment's are tested for its working condition in starting and mid of the academic year.
- 4. Fire Extinguishers are recharged after expiry date.
- 5. The equipment's are periodically serviced and maintained in every semester.
- 6. All the equipment's is tested before going to work in field.
- 7. Machines are inspected at start and mid semester.
- 8. The painting to the equipment done to prevent from corrosion.
- 9. The machines were run frequently to check the working conditions.
- 10. Expiry dates for chemicals were checked periodically.
- 11. External calibration is done once in three years and internal calibration once in a year.
- 12. Floor cleaning of labs are done daily by sweepers
- 13. List of experiments, equipment's, Do's and Don'ts are pasted in the laboratories for reference of the students.

Electrical and Electronics Engineering

The equipment in the laboratories is maintained by the lab technician with advice of Lab Incharges and HoDs. The stock register is maintained by the Lab technician supervised by lab incharge and HoDs of the departments.

Periodic maintenance of Laboratories equipment as follows:

• Lab stock register is maintained and periodically updated by lab incharge and technician





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whenever purchasing the materials.

- Stock verification is done once in a year by stock verification committee to check availability and working condition of the equipment.
- The working condition of the equipment check periodically.
- External calibration is done once in three years and internal calibration once in a year.
- Old and condemn equipment are removed by proper procedure.
- Breakdown or repair of any equipment is reported by head of the department through lab incharge and take necessary action for quick functioning of equipment.
- Floor cleaning of labs are done daily by sweepers
- List of experiments, equipments, Do's and Don'ts are pasted in the laboratories for reference of the students.

Master of Computer Applications

Computer Lab:

- 1. All Computers and related equipments like printers, scanners are backed up by UPS.
- 2. Back –up of computers in regular basis.
- 3. Hard disk clean-up and virus clean-up regularly.
- 4. All necessary applications are installed in the beginning of the semester.
- 5. Anti-viruses program is installed properly in all the computers.
- 6. Set-up automatic updates for computer software.





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Daily Maintenance:

- 1. Lab technician checks the working condition of the computers on daily basis.
- 2. Every day cleaning of computers are done by lab technician.
- 3. Floor cleaning of labs are done on a daily basis by housekeeping department of the college.

Preventive Maintenance:

- 1. The working conditions of the computers are periodically checked by technician.
- 2. Lab technician checks the water level, voltage level and back up of UPS.







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Biomedical Engineering

- 1. Personal protective equipment's like gloves, lab coats and sharp line markers are used while working with organisms and specific chemicals,
- 2. The bench top is cleaned before and after use with a disinfectant, the work surfaces are disinfected to decontaminate after a spill and after each work session,
- 3. Handling of microbial cultures is carried out under expert supervision,
- Mouth pipetting of cultures and Broth is strictly prohibited. Pipetting is carried out with the aid of
 mechanical pipetting device, the inoculation loops and syringes are handled carefully to avoid
 self-inoculation.
- 5. Eatables are strictly not allowed inside the laboratory,
- 6. The students are instructed to wash hands with a soap solution or a hand wash or a sterile solution before they leave the laboratory.
- 7. Fire extinguishers are well maintained and checked periodically and refilling is done at every due date.
- 8. At the end of each semester the equipment are checked for their working condition and service carried out.
- 9. Every day cleaning of equipment and work tables are done by the lab technicians, Floor mopping of labs are done twice in a week by housekeeping department of the college,
- 10. The monthly maintenance report is maintained for all the laboratories by the concerned lab in charges,
- 11. Stock register is maintained in laboratories and audits are conducted by stock verification





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committee to check the availability and working of the equipment and the working conditions of the equipment are periodically checked.

12. Service register is maintained in each laboratory

Mechanical Engineering

- 1. The lab in-charge checks the stock of consumable resources and working condition of the lab equipment before the commencement of each semester.
- 2. Do's and Don'ts are pasted in the laboratories for reference of the students.
- 3. All mechanical machines and measuring instruments are inspected at start & mid semester.
- 4. Proper Flooring, proper cleaning, proper Ventilation and proper lighting and Ceiling fan provided to the students for practical hours.
- 5. Stock verification is done by the stock verification committee once in a year.
- 6. Fire extinguishers are recharged after expiry date.
- 7. External calibration is done once in three years and internal calibration once in a year.
- 8. Each laboratory is equipped with first aid kit.

At the end of each semester the equipment are checked for their working condition and service carried out.

- 1. The requirements of any laboratory consumables are submitted to the respective authority.
- 2. The purchase of consumables is done after the approval from the concerned authority.
- 3. For repair works of major equipment, quotations are invited from the suppliers and then the purchase order is issued.





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- 4. Minor repair works of laboratory equipment are carried out internally with the help of lab technicians.
- 5. Major repair works of laboratory equipment are carried out with the help of suppliers.

Physics & Chemistry Laboratories

All the equipment in the Physics and Centre for Nanotechnology laboratories are maintained by the lab technician with the advice of concern Lab In-charges and HoD. The stock register is maintained by the Lab technician supervised by the lab in-charges and HoD.

Periodic maintenance of the Laboratory equipment are as follows:

- Lab stock register is maintained and periodically updated by the lab in-charge and technician whenever purchasing the materials.
- Stock verification is done once in a year by stock verification committee to check availability and working condition of the equipment.
- The working condition of the equipment was checked periodically by the technician.
- External calibration is done once in three years and internal calibration was done once in a year. Old and condemn equipment's are removed by proper procedure.
- Breakdown or repair of any equipment is reported by the Head of the Department through lab incharge and the necessary action are taken for the quick functioning of the equipment.
- Floor cleaning of labs are done daily by the sweepers
- List of experiments, equipments, Do's and Don'ts are pasted in the laboratories for the reference of the students.





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Sports Maintenance:

Sports indoor and outdoor Games Equipment, Courts, Playground and Gym are maintained by Physical Education Director. The damaged Sports materials are immediately replaced with the new one.

- The grounds are maintained at regular intervals.
- The grounds are marked periodically.
- The gym equipment is cleaned and lubricated properly.
- The sports equipment is checked and serviced at regular intervals by physical education director.

Transport

Buses are available for students and staffs to daily commute from various places to the college campus and back. We endeavour to provide the best possible transport service for all our students. We place the safety and responsibility of the students as our highest priority. To provide safe and reliable transport services to the students at the highest levels of safety, quality, customer service and positive employee relations.

Vehicle Regular Maintenance

- 1. Driver check the radiator temperature and oil on daily basis
- 2. Driver check and confirm the lights working status all sides regularly
- 3. Driver checks the tyre pressure before start the vehicle.
- 4. Driver clean the front mirror, body and platform on regular basis.
- 5. Grease is applied to all joints and spring bushes once a week.
- 6. The distilled water level in the battery is appropriately maintained and cleaned





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Vehicle Documentation / Records

- 1. Insurance, road tax, green tax fitness certificate, Pollution certificate and Permit renewed as per the time schedule.
- 2. The fire extinguishers are replaced once a year.
- 3. Every 10,000 kilometres, the tyres will be rotated.
- 4. The engine oil and filters are changed every 10,000 kilometres.

During F.C. Work

- 1. Full body painting will be done
- 2. Worn-out joints are inspected and replaced.
- 3. The spring bushes, cut work and the spring assembly is re-cambered.
- 4. The damaged seat covers and window shutters have been replaced
- 5. Repairs of doors, foot step, platform and the body have been completed
- 6. 4 wheeler grease packing is also done on a regular basis
- 7. The speed controller is renewed once a year and uploaded in government portal.
- 8. The gearbox and crown oil are checked and refilled.
- 9. CCTV camera and GPS tracking system has been installed for security purpose.

