

Maintenance



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Maintenance Procedures

Continuous Improvement

NCERC continuously improve the effectiveness of Quality Management system through the use of Quality policy, Quality Objectives, audit results, Analysis of data, corrective & preventive action & management review.

Corrective Action

NCERC takes action to eliminate the causes of non-conformities to prevent recurrence. Corrective action is taken in a manner befitting the effects of non-conformities encountered.

Documented procedure has been established to define:

- a. Review of non-conformities including customer complaints
- b. Determining the causes of non-conformities.
- c. Evaluating the need for action to ensure that non-conformities do not recur.
- d. Determining & implementing the action needed.
- e. Recording results of action taken.
- f. Reviewing effectiveness of corrective action taken

Preventive action

NCERC determines actions to eliminate the causes of potential non-conformities & their occurrence. Preventive action is appropriate to the effect of potential problems.

A documented procedure has been established for

- a. Determining potential non-conformities & their causes.
- b. Evaluating the need for action to prevent occurrence of non-conformities.
- c. Determining & implementing the action needed.
- d. Recording results of action taken.
- e. Reviewing effectiveness of preventive action taken.

Every year, each department to Principal submits budget proposal. The proposal includes request for purchase of equipment / devices / instrument / computer systems / software /consumables and maintenance of those. This will be discussed in the HOD's meeting and the management will sanction the budget to every department during the beginning of every academic year.

Once the tenders are submitted by different agencies, the ultimate focus of then management is always been to select good quality products at reasonable rate.

For the maintenance of these facilities, housekeepers are allotted. It has adequate number of Housekeeping staffs for the maintenance of buildings, classrooms, laboratories, washrooms and furniture.

Our college has a dedicated Campus Maintenance Office for overseeing the maintenance of buildings, classrooms and laboratories in addition to construction of small structures in the campus. A maintenance register is being kept in the office of the administration block. All complaints and recommendations registered are being checked and processed by the Officer with the approval of the Principal to ensure proper functioning and improvement of the equipment and other facilities.

These are the few campus specific initiatives undertaken to improve the physical ambience which can be summarized as follows.

- a. Rainwater harvesting facility is provided in all the buildings.
- b. New tree plantations are also undertaken to make the campus green.
- c. Initiatives have also been taken to paint all the buildings in the Campus Periodically.
- d. In order to keep the campus secure and safe, surveillance cameras were installed in several locations inside the campus.
- e. Green planting and natural manure is done for plantation with the animal house maintained at the campus.

Calibration

- f. A master list of inspection, measuring and test equipment s under calibration is identified in each department.
- g. Each equipment is identified with a unique number.
- h. Calibration frequency is identified for each department.
- i. Calibration is done as per the plan prepared and kept in the department either internally or externally.
- j. A calibration schedule is prepared and equipment are removed from the workplace before it is due for calibration.
- k. Calibration details such as calibrated on, calibrated due on details, error of equipment details are displayed on the equipment where possible.
- l. The certificates received from the external calibration agencies are verified and authorized.
- m. The error notifications if any observed are entered in the calibration register is maintained in the department.
- n. Where internal calibration is done master equipment which is calibrated externally is selected for calibration.
- o. Measuring instruments are calibrated after breakdown maintenance to ensure its accuracy.

Maintenance of sensitive equipment & water supply

Sensitive equipment are maintained with the proper safety provisions in all the laboratories and offices by the respective in-charges. The power is distributed with proper earthing to all the labs, classrooms, offices etc. from Main Control Board via Sub control Board which is having advanced circuit breakers to ensure safe and secure power supply. The college have a dedicated transformer of 200kVA .Each floor of the college infrastructure is provided with a powerDB and two LDB's. Every block have a UPS backup and this can run for 30 minutes. There are two Backup Generators for giving the backup supply to the labs and classrooms. The college electrician and the supporting staff are taking care of electrical equipments and their maintenance. The college has a separate HT connection and the college is a privileged HT customer of KSEB Kerala. The maintenance works and the electrical works and promptly being carried out under the direct supervision of the Assistant Engineer, KSEB, Thiruvilwamala.

The college is connected with uninterrupted water supply from our own open ponds, bore well and Thiruvilwamala panchayat water supply. The college has its own Mechanism of storage and supply of water after due purification. The Aryabhata block is provided with four 35000-litre capacity tanks of which one tank is dedicated for drinking water. The Bhaskara block is provided with two 2000-litre tanks and one 1000 litre tank for drinking water. A water supply in-charge monitors the supply of water timely and his work is watched by the maintenance supervisor.



Nehru College of Engineering & Research Centre
Pambady, Thiruvilwamala, Thrissur, Kerala - 680588
General Maintenance Checklist



Task	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
General Maintenance Items												
Evacuation plans posted												
Emergency procedures posted												
Supply & material storage												
MSDS sheets on file												
First Aid supplies in stock												
Maintenance equipment												
Employee safety procedures												
Interior Electrical												
Switches and cover plates												
Receptacles and cover plates												
Light fixtures												
Panel closed & locked												
Exit signs operational												
Emergency lights operational												
Extension cords in use												
Exposed wiring												
Unapproved wiring practices												

Electrical panels – three (3) foot clearance													
Exterior Electrical													
Exterior lighting													
Power connections to bldg.													
Utility poles													
Exposed wiring													
Interior Plumbing													
Toilets													
Hand wash basins													
Sinks/fixtures													
Drains													
Drinking fountains													
Showers & fixtures													
Sprinkler controls & heads													
Exterior Plumbing													
Drains (cleared and open)													
Culverts/headwalls													
Water faucets/connections													
Fire connections are in good condition and accessible													
Exterior General Items													
Windows/sills													
Doors & hardware													

Roof												
Gutters/downspouts												
Exterior wall surface												
Paint												
Steps (treads & landings)												
Fencing												
Paved athletic surfaces												
Trees/shrubs												
Landscaping (borders/mulch)												
Enclosed areas are locked; ex., meters, cooling towers												
Drives and parking lots												
General condition of grounds												
Interior General Items												
Doors & hardware												
Sidewalks/porches												
Exterior wall surfaces												
Stairwells and landings												
Ceiling												
Floors												
Glass enclosures												
HVAC filters												
Walls												

Fire extinguishers												
Blocked emergency exits												
Handrails												
Playground												
Exposed edges/objects												
Sharp or pointed edges												
Loose supports/anchors												
Handrails, steps, landings												
Chipped or broken surfaces												
Ground cover & edging												
Tripping or falling												
Splintered wood												
Unauthorized equipment												
Unlevelled or shifted equipment												
Excess gaps or spaces												
Adequate protective surfacing												

This form is a reminder of general areas and items to be inspected by the college. Check each item acceptable or not acceptable. All not acceptable items shall include the location, the date corrected on-site, the person making the correction, or the work order number submitted for the correction to be made. All attempts shall be made to correct any not acceptable items before a work order is submitted. This form shall be sent to the Principal. A copy of this form shall be kept by the employee making the inspection.



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Computer Maintenance Checklist



Task	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Backup data												
Remove icons from desktop												
Run C-Cleaner												
Run Malwarebytes												
Clean monitor												
Blow out tower												
Clean lens of DVD drive												
Run disk defragment												
Microsoft updates												
Scan disk												



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Machine shop Maintenance Checklist



Task	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Check & record voltages at various circuits												
Tighten all connections with power removed												
Check backup batteries and/or replace on a routine schedule												
Check indicators												
visually inspect for loose or frayed wiring, moisture in enclosure etc.												
check to make sure plug-in connectors are tight & secured												
Test alarm systems, horns, sirens etc.												
check & record any configuration settings												
Perform & record calibrations												
Check all input output points												
Check & record power usage												
Check equipment runtimes												
Measure device current to set benchmark												
Review any diagnostic history												



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Restrooms Maintenance Checklist



Task	8AM	10AM	12PM	2PM	4PM	6PM
Empty trash						
Clean mirrors						
Clean fixtures						
clean dispensers						
clean toilet & urinals						
clean partition & walls						
sweep & mop floor						