

There are established systems and procedures for maintaining and utilizing physical, academic and support facilities - laboratory, library, sports complex, computers, classrooms etc.

Mahaveer Institute of Science and Technology properly maintains, utilizes physical, academic, and other facilities. A few specific initiatives undertaken to improve the physical ambience of the campus, in the last five years are:

- Coloring of buildings.
- Fall ceiling of labs and class Rooms
- Planting of new trees.
- New Seminar Halls for ECE and EEE Dept.
- Display of Vision and Mission Boards.
- Construction of Separate Hostel for Boys and Girls.

A location supervisor will observe electrical, plumbing, and housekeeping related issues/complaints. Regular inspection, maintenance of the furniture's and classroom equipments is done on a regular basis. He also looks after the maintenance of other infrastructural facilities such as a playground, drinking water, parking areas, lawns, gardens, sewage treatment plants, whitewashing, restrooms etc.,.

Garden maintenance is taken care of by a team of gardeners.

#### Laboratory 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, sports complex, computers, etc.

First aid kits are kept in all laboratories and department to meet out 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 proper function of

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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. Then it is recoded in service register. 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 in every year.

All the laboratories are good enough with proper ventilation. Experiment lists are displayed in the concerned labs. Student Log -In register, stock register, Invoice files and purchase bills are maintained for each lab. All laboratories are effectively used by the students as per their time table during the college hour's .Beginning of every semester, checking of all the equipments is done and brought to the notice of the Head of the Dept. First aid boxes, fire extinguishers are provided wherever necessary.

Laboratories maintenance is taken care of by the Lab Assistants.

Timely updates or automatic updates for computer software

All the computers and related equipment like printers, scanners, etc. are backed by UPS

Timely Installation of anti-virus program on the computers

Back up will be taken from computers on a regular basis

Hard disc cleanup and defragmentation utilities regularly

All computers for applications are checked at the beginning of semester

By selecting the shutdown turn off all computers option on the desktop

Frequent maintenance of computers, AC, Printer and other equipment for every 6 months.

Software license renewal is done as per the license period.

Turn off all computers by selecting the shutdown option on the desktop

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#### Library:

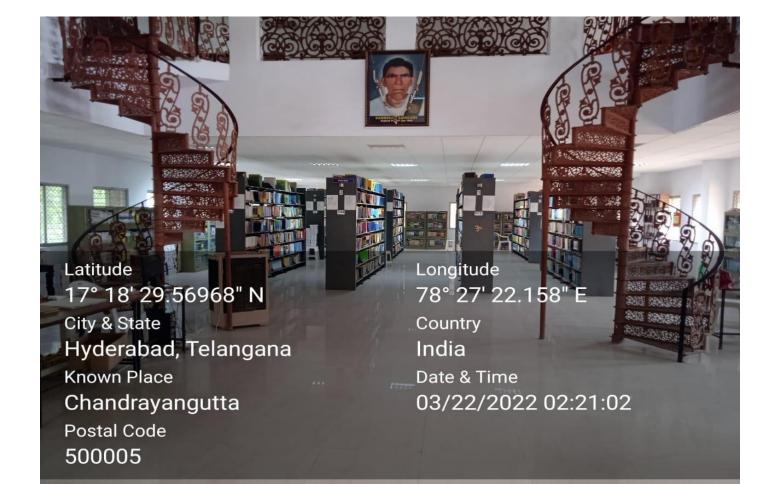
We have a huge collection of books that are easily accessible for use with the motto of empowering knowledge. Proper rules and regulations are been followed in the library. Library is fully automated with in Modern software and barcode Technology. Our Library maintains a Book Bank facility to help needy students belonging to economically and socially weaker sections of the society. Library maintenance is taken care of by the Librarians.

The Library collectively supports the teaching, research and extension programmers of the Institute. All students, faculty members of the Institute are entitled to make use of the Library facilities by taking library membership. The Library, besides having a huge collection of books on Engineering, Science & Humanities offers library services through its various divisions.

The library offers an integrated and dynamic environment for conducting academic and research activities. Multiple copies ensure that resources are easily available in Reference Section and Stack Area as well. The Library is Wi-fi enabled and under CCTV surveillance. NPTEL Facility (National Program on Technology Enhanced Learning) to access web & video lectures are available.

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# **General Security:**

Security officers are deployed at the college main gates, hostels and other strategic locations. They take care of the security in the buildings and also check all the outsiders entering the campus.

**High-Visibility Clothing** College Security Guards' are provided high visibility clothing for firstly for his safety and also to alert any possible criminals that may plan to break in the area/property he is guarding.

**Boots** is an investment worth making. Especially they stand or walk for long periods, comfortable and supportive boots are an item every guard provide **Flashlight**. Flashlights are usually oversized and heavy, they are essential to a Security Guard.

Campus maintenance is taken care of by a team of Security Guards.



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### **Electrical Maintenance:**

Our college has a huge solar panel available on the terrace which is regularly checked by the EEE dept. Electricians are also available, who maintains electrical equipment such as generators, UPS, and Batteries .They resolves the issues in electrical equipments of the labs ,class rooms and other places of the campus at regular intervals.



The college has a dedicated 11 KV feeder line from TSSPDCL area substation with HT service.

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Particulars	Capacity	No
Transformer	500 KVA	1
Solar plant	100 KW Grid –tied solar plant	1

### **Power Backup:**

Particulars	Capacity	Number
Generators	125 KVA Diesel Generator	1
UPS	10 KVA	7
	6 KVA	6

### Water Plant:

Our college has water Plant that provides drinking water to the college and hostel. The entire college campus is facilitated with pure drinking water with water coolers in every floor to cater to the need of pure and safe drinking water to all. We have 10000 liters / day RO systems installed in the campus. Regular testing and proper maintenance is done to ensure the pure drinking water.

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No of Bore Well: 3 Nos

Type of the tank	Number	Tank capacity
	1	15000 Liters(RO Water)
Over head tank	1	15000Liters(RO Water)
Underground well	1	

Particulars	No.s
RO Plants	1
Drinking water Coolers	7

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# **CCTV:**

To maintain computers, internet connectivity and CCTV security system, network and system administration team is appointed. System Administration team also resolves the issues like hardware trouble shooting, software installation, Maintaining Biometric devices and network related issues. Cameras are installed in various vantage points inside college campus. Class Rooms are provided with CCTV camera. Campus is equipped with CCTV camera on main places with 24x7 security system, necessary human power is available to take care of the facilities. Campus CCTV maintenance is taken care of by the technical team.

The maintenance of CCTV cameras will need is dependent on their location and how easily knocked or damaged they are, it is better looking over cctv's at least once in a month. To ensure that they are functioning properly and keeping your property protected. We'd also recommend that you have your systems checked over annually by a professional service as they will be able to conduct more in-depth checks than you are capable of and spot and rectify any developing problems early on, increasing the lifespan of your system. There are a few simple checks and maintenance tasks you can carry out at home without any specialist equipment to keep your system in good condition.

# **CC Cameras:**

- Check the camera lens is focused and adjusted properly
- Check the camera view hasn't been knocked off path and you can see your property perimeter clearly
- Clean any dust or marks off the camera lens with a can of compressed air and wipe down the camera casing with a microfiber cloth
- Check that the motion detection sensors are working, if you have them
- Use your controller to check that the camera's functions, such as zoom and pan are working correctly
- Trim back any foliage that may be obscuring the view
- Check that the cameras are securely attached to the wall

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# Wiring:

- Check wiring for any wear and tear or exposed wires
- •
- Check for loose wires
- Check that you're getting a clear transmission of sound and picture with no distortion

# Monitors and recording equipment:

- Check that the monitors are showing a clear picture and that the brightness and contrast settings are correctly adjusted
- Check all of your switches and individual equipment are functioning fully
- Clean all monitors and equipment of dust and grime with a microfibre cloth and a weak cleaning solution
- Check cables leading from the equipment are in good condition and that there are no weak connections
- Check that the correct time and date stamp is set

Latitude Longitude 17° 18' <u>27.53244" N</u> 78° 27' 19.681<u>56" E</u> City & State Country Hyderabad, Telangana India Known Place Date & Time 03/21/2022 02:25:16 Chandrayangutta Postal Code 500005

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#### Fire Extinguishers & First Aid Equipments:

Fire Extinguishers are provided in different locations of the building for Safety purpose. First Aid Equipment is provided in each lab. Portable fire extinguishers provide a first line of defense against fires of limited size. Fire extinguishers should be readily accessible and fully functional for immediate use. Since all fire extinguishers are not created equal, it is vital to have the proper size and agent when needed to minimize damage. Properly maintained fire extinguishers operated by trained personnel save lives and prevent property damage.

Fire extinguishers shall be maintained annually and inspected monthly. Our technicians will ensure that whether the right extinguisher for the hazard is protected, and that the quantity of extinguishers and the distance between them meet the required code and also carry monitored fire extinguishers that electronically check for pressure, the existence of the device, and to confirm there is no obstruction. It will be notified as soon as the extinguisher is removed from service whether intentional or accidental.

# MAINTENANCE SCHEDULE: EVERY YEAR

- Maintenance on portable fire extinguishers. EVERY 5 YEARS
- Hydrostatic test on carbon dioxide and water-based extinguishers. EVERY 6 YEARS
- Maintenance on stored-pressure extinguishers. EVERY 12 YEARS
- Hydrostatic test on stored pressure and cartridge-operated extinguishers.

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#### **INSPECTION PROCESS:**

- Determine if the extinguisher is properly hung with the proper manufacturers hanger
- Remove the extinguisher from its hanger
- Check the gauge pressure
- Check the condition of the gauge and its compatibility with the extinguisher
- Check the date of manufacture, last hydro test & six-year maintenance date
- Check the valve and shell for damage or corrosion
- Remove the hose and check the threads, inspect the hose for cracks or splits, and inspect the condition of the discharge horn
- Check the valve opening for powder or any foreign matter
- Remove the extinguisher seal and locking pin and check the upper and lower handles
- Replace the locking pin and reseal the extinguisher
- For dry extinguishers, fluff the powder by turning the extinguisher
- Clean the extinguisher
- Check the condition of the hose/horn retention band at the side of the extinguisher
- Check the extinguishers classification and operating instructions legibility and properly tag the extinguisher
- Survey the hazard area to verify that the extinguisher classification corresponds with the hazard
- Check that the extinguisher is visible and unobstructed
- Replace the extinguisher on its hanger
- Deliver a complete report of the inspection explaining any deficiencies and recommending corrective action in accordance with recognized codes for care and maintenance

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#### Solar energy:

Educational institutions can do wonders in building the future of children by implementing sustainable practices like the installation of solar panels on the roof of the school or college building which can help save money and energy What makes the staff and students happy is that in addition to reduced costs and consumption of energy, this initiative has helped reduce the carbon footprint too. Even when there is no power, they can still turn on the lights and continue classes.

Most solar panel operation and maintenance (O&M) processes require periodic checks for ensuring optimal performance and security. The frequency and degree of solar array monitoring and solar panel maintenance are reliant on the installation type, system configuration and location of the commercial solar power system in use. Yearly inspections are recommended by companies providing solar maintenance in India. Apart from inspecting PV systems regularly, it is also important to carry.



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### Processes involved in the maintenance of solar power systems:

- The timely and regular cleaning of solar cells and PV panels
- Regular maintenance of all thermal-based components
- Servicing of HT side equipment on an annual basis
- Diagnosis and tests pertaining to low solar power production
- Testing and upkeep of circuits
- Tracing of IV curves and thermal imaging
- Measure of earth value
- Retro-commissioning

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- Management of warranties
- System checks pertaining to data acquisition.

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# **Medical services:**

24 hours ambulance services in Mahaveer Institute of Science & Technology, Hyderabad offer their services all-round the clock for any kind of medical emergencies which needs transportation of sick or injured students. As emergency response vehicles, ambulances must be maintained in safe and reliable operating condition at all times. While occasional mechanical failures are inevitable, much can be done to prevent them.

- ECG/Manual Defibrillator equipment
- Pulse oxyimeters
- Suction devices
- Rechargeable battery powered lights
- BP Cuffs; manual and automatic
- Patient stabilization/transportation/immobilization devices
- Oxygen regulators and delivery systems
- Ventilators



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# **Electric fencing:**

College security fencing will surely lessen the scope of strangers from stepping into the college. Usually, colleges are unrestricted areas where people roam to and fro from students, teachers, staff, parents, and administration as all of them have the power to be in the college premises.

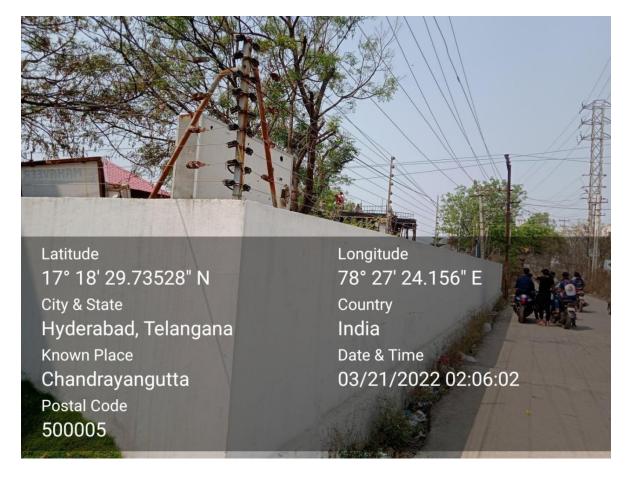
# **Electric fencing maintenance procedure:**

- Look for and remove sources of "load." Mow or trim under bottom strand to prevent grass and weeds from touching the fence; watch for fallen limbs or other objects on the fence or caught in insulators. (Tips: Listen for the rhythmic snap that indicates a voltage leak; follow your ears to find the source. Drag a long stick on the ground beneath the bottom strand as you walk the fence-line; it may knock away an interfering object you don't even see.)
- *Check insulators.* A broken insulator can allow the fence strand to touch the post--not an immediate problem with a nonconductive wood post, but if you're using steel T-posts a broken insulator can cause the fence to go dead when the strand touches the metal.
- *Check connections*. Ground-rod wires can get knocked or kicked away. Wires attaching the cable to the fence may come loose.
- *Check the charger.* A spider's web built between terminals can cause it to spark.
- *Check insulated cable.* Look for places where the cable may be abraded, for instance where it passes through a hole cut in metal barn siding.
- *Check fence strands:* Look for frayed spots in poly tape--if metal fibers in the weave become separated, tape can't conduct current.

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#### **Main Entrance:**



### **Boys Hostel:**

For students enrolled into various courses the college offers on campus residential accommodation in the form of hostel. Separate hostel facility for Boys and Girls.

### Hostel maintenance procedure:

Accommodation at college is spacious, beautiful and well maintained. There is 24 hours security and facility management for the Hostels. The administration and discipline at the Hostels are

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taken care by a faculty member. The Boys Hostel and Girls Hostel have separate resident wardens in addition to the supervisors and support staff. There is a provision of room with air-conditioner which is optional for students.

The hostels are equipped with world-class facilities like:

- 1. 24-hour internet connectivity through a Wi-Fi backbone.
- 2. On campus, laundry services.
- 3. Music clubs, library access and an extensive tuck shop.
- 4. Doctors visit on Campus and tie up with nearby Hospitals for medical support.
- 5. Electricity back up, water heaters and RO water for drinking.
- 6. Common rooms with Television sets, Table Tennis, Snooker, and Indoor Sports.
- 7. Dining-rooms well maintained and hygienic kitchen managed by professional agency offering cuisines from all across India along with continental choices.
- 8. On campus cafeteria offering wide range of refreshments, snacks and beverages.

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# Hostel / Mess:

A separate building for boys and girls hostel is been built to ease the students of non locals. Cots, Fans, Tube lights, TV, cooking vessels, cooking stove, etc., are maintained by Deputy Warden / Mess I/c. Monitored periodically by the staff assigned for the hostel. Biometric is also available for the students to keep track of them entering or leaving the hostel premises. Hostel students can enjoy the brand new Dining **Hall**, offers a variety of healthy and delicious choices. Hygiene and tasty food offered for the students with homely environment.

# Mess/Canteen committee:

- Meet regularly to discuss and evaluate performance of mess and canteen (including the juice stall, and any other food stall commissioned on campus)
- 2Arrange/conduct regular inspections to check (i) quality of food, (ii) cleanliness and hygiene, (iii) appropriate staff assigned for tasks, (iv) price change without the approval of the warden. Based on the observations made during inspection, levy fines, if needed.
- Prepare monthly report on the performance and issues connected with the various establishment connected with the committee. (This will form a part of the monthly report of student's office)
- Manage the webpage for mess/canteen
- Fix the menu, arrange for it to be publicized to students; take spot decisions on menu, when needed. 6. Arrange for temporary vendors who can visit for limited durations (after due permission from Estate Officer) for special foods for the campus residents, e.g. thela/food-cart for Chaat, Corn, ice-cream, etc,

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#### Water heater:

Solar energy systems require periodic inspections and routine maintenance to keep them operating efficiently. Also, from time to time, components may need repair or replacement. You should also take steps to prevent scaling, corrosion, and freezing.

#### **Periodic Inspection:**

Here are some suggested inspections of solar system components. Also read your owner's manual for a suggested maintenance schedule and keep track of previous maintenance activities in order to manage preventative maintenance intervals and better track elusive problems

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# Collector shading

visually check for shading of the collectors during the day (mid-morning, noon, and midafternoon) on an annual basis. Shading can greatly affect the performance of solar collectors. Vegetation growth over time or new nearby construction may produce shading that wasn't there when the collectors were installed.

# • Collector soiling

Dusty or soiled collectors will perform poorly. Periodic cleaning may be necessary in areas with specific sources of soiling such as birds or dust from plowing and if rain is not sufficient to rinse them off.

# • Collector glazing and seals

look for cracks in the collector glazing, and check to see if seals are in good condition. Plastic glazing, if excessively yellowed, may need to be replaced.

# • Plumbing, ductwork, and wiring connections

look for fluid leaks at pipe connections. Check duct connections and seals. Ducts should be sealed with a mastic compound. All wiring connections should be tight.

# • Piping, duct, and wiring insulation

check that all valves are in the proper operating position. Look for damage or degradation of insulation covering pipes, ducts, and wiring. Cover the pipe insulation with protective plastic or aluminum wrapping and replace if necessary. Protect wiring in conduits

# Roof penetrations

Maintain flashing and sealant around roof penetrations as needed. Watch for any signs of water leakage on the underside of the roof (if visible).

# • Support structures

check all nuts and bolts attaching the collectors to any support structures for tightness. Watch for corrosion on steel parts- and clean and paint if necessary.



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### Pressure relief valve (on liquid solar heating collectors)

Actuate the lever to make sure the valve is not stuck open or closed.

#### • Dampers (in solar air heating systems)

If possible, make sure the dampers open and close properly and are in the proper position.

#### • Pumps or blowers

Verify that pumps or blowers (fans) are operating. Listen to see if they come on when the sun is shining on the collectors after mid-morning. If you can't hear a pump or blower operating, then either the controller has malfunctioned or the pump or blower has. The problem is often the starting capacitor, which can be replaced without replacing the pump or motor.

#### • Controls

Solar water heating controls consist of a temperature sensor on the solar collector outlet, another at the bottom of the solar storage tank, and a circuit (delta-T controller) to start the pump when the collector is hotter than the tank and stop the pump if it's not. If the pump is running at night it could be that the collector sensor is short circuited or the tank sensor open circuited. If the pump is not running during the day the reverse could be the case and the resistance of these sensors should be compared to reference value to determine which one has failed. A common problem is temperature sensors simply falling off the surface they are intended to measure- ensure that they are fastened with a luger stainless steel clamp.

#### • Heat transfer fluids

the propylene glycol antifreeze solutions in liquid (hydronic) solar heating collectors need to be replaced periodically. The pH (acidity) and freeze point of the fluid can be

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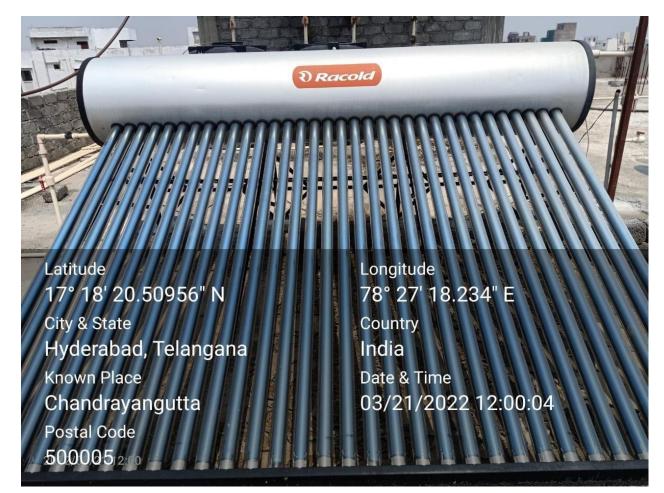
- measured with hand-held instruments and replaced if out of specification. It's a task best left to a qualified technician. If water with a high mineral content (i.e., hard water) is
- circulated directly in the collectors, mineral buildup in the piping may need to be removed by adding a de-scaling or mild acidic solution to the water every few years.
- Storage systems

Check storage tanks, etc., for cracks, leaks, rust, or other signs of corrosion. Steel storage tanks have a "sacrificial anode" which corrodes before the tank does and should be replaced at an interval recommended by the supplier. It is a good idea to flush storage tanks periodically to remove sediment.

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#### **Girls Hostel:**

For students enrolled into various courses the college offers on campus residential accommodation in the form of hostel, Separate hostel facility for Boys and Girls. The very first thing is that the hostel should have proper sanitation facility. This is very important. The washroom, sanitary napkin disposal facility should be up to the mark. It should keep in mind that girls are more prone to such infections. The food is nutritious. Most of the females are anemic. Green vegetables, proper pulses and fruits should be provided. Once a week egg, milk should also be included without fail in the menu.

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**Girls Hostel maintenance:** 

- A hygienic mess shall be provided in hostels.
- In case of illness of the student, food is provided as per the instruction of medical advice but in no case any non-vegetarian food is allowed in the hostels.
- Proper housekeeping staff shall be assigned for the maintenance of the cleaning in hostel premises and each room.
- Newspapers and magazines shall bemade available in the hostel's common room on chargeable basis.
- Common room / T.V room facilities shall be made available to the boarders/ students in the hostel premises.
- RO system duly fitted with water cooler shall be made available in the hostel for the water purification.
- Wi-Fi facilities shall be made available in the hostel in due course of time on chargeable basis.
- All required furniture and fixtures shall be made available with each room of the hostel.
- Electricity and water supply shall be made available round the clock except during maintenance. However, the charges shall be paid by the students on actual basis.
- CCTV cameras shall be fitted in the hostel for the security purpose.
- A hot water facility shall be available in the hostel. 12. Visitor Room shall be made available in hostels for the parents and relativ ves of the students.

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# (a) Girls Gym:

Cultivating a healthy relationship with fitness for personal well being is vital for every individual and more so with college students. The institute offers gym facility to all its student's .The gym here has all the modern equipment for workout and is made available to students.

# Daily tasks:

• Check the product, including the safety key, for safe operation. Secure any loose screws, nuts and bolts. If you have questions about the operation or safety of a product, unplug it and place an Outof-Service note on the product until the issue is resolved.

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- Use a clean, lint-free towel, dampened with a water to wipe the product clean. Include the display, grips, handrails and landing strips. (Do NOT use cleaners with alcohol, ammonia or other damaging chemicals. Never spray or pour any liquid directly on the product.)
- Touch screens should be cleaned using foam cleaner together with a lint free cloth (for example micro-fiber cloths).

### Monthly tasks:

- Inspect the power cord for damage. Replace if necessary.
- Make sure handles, pedestals, and other parts are secure, and that all nuts / bolts and screws are tight.
- Check running belt tension and alignment. Adjust if necessary. Do not over tighten.

# **Quarterly tasks:**

• Inspect the walk belt and deck for wear.

**Note:** When replacing the running belt, flip or replace the running deck; always provide a fresh contact surface for a new walk belt.

### **Biannual Tasks:**

• Lubricate the walk deck with lubricant (silicone oil) every 6-8 months.

General Notes on Maintenance Note that product maintenance requirements depend on usage and environment. This schedule is based on average use. Some products may require maintenance more often than is suggested here.

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#### (b) Hostel RO System:

Clean, neat, RO drinking water provided to the students with advanced RO water plant. The Institution has Reverse Osmosis Plant to provide drinking water to the college and hostel. The entire college campus is facilitated with pure Reverse Osmosis (RO) drinking water with water coolers in every block to cater to the need of pure and safe drinking water to all. The water treatment plant provides safe drinking water at every tap on the campus. A high level of maintenance attention and regular testing ensure the quality of the water. Water treatment plant with reverse osmosis technology is available to provide quality drinking water.



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### **Biogas:**

The College has a Biogas plant that is powered by kitchen waste. That biogas is used to cook meals and snacks in the canteens. Other kinds of wet garbage are collected for compost pits, which end up as natural fertilizer.

### **Periodical maintenance of biogas plants:**

All the models of biogas plants are designed in such a way that least attention is necessary for operation and maintenance. It is however necessary to follow some simple guidelines, failing which there would be problem in the working of the unit. Operation and maintenance guidelines could be categorized as: (i) Daily routines, (ii) Weekly routines, (iii) Monthly routines and (iv) Half Yearly/Yearly routines.

### **Daily Routines/Maintenance:**

- About 25 kg of cattle dung is required for generation of 1 m<sup>3</sup> gas per day (calculated at 1.4 cft/kg). For higher capacities, the dung required for daily feeding is (25 x X) kg, where X is the capacity of the plant. The required quantity of dung along with equal quantity of water is fed into the mixing tank after plugging the inlet pipe. The contents are thoroughly mixed. Materials like, straw, trash etc. should be removed. The slurry is then led into the digester by removing the plug put at the opening of the inlet. After feeding, the inlet opening is again closed by the plug. The inlet tank is cleaned with water and the washing is drained out through the hole provided at the lowest point of the floor of the inlet tank. Inorganic materials like sand, mud, *etc.* will get washed away while cleaning the mixing tank.
- In the case of KVIC model, the gas holder is given half rotation in clockwise and anticlockwise direction 2-3 times, immediately after feeding to break the scum on the surface of the digester slurry. This is to be repeated once more during the day, when the gas holder has submerged in the slurry.

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- As far as possible, the main gate valve is opened only when gas is required. In any case, it should be made as a practice to close the gate valve at night, when no more gas is required. Next day the valve is opened when use of gas is to start.
- The air shutter's position is checked while starting the use of burner in the morning and is properly readjusted, if necessary.
- In the case of KVIC model, during the first month after commissioning the plant, it is likely that the outlet pipe is chocked by hard cattle dung that must have gone into the digester at the time of initial feeding. It may therefore be checked about the flow of the slurry from outlet pipe immediately after daily feeding. If there is any chocking, it may be cleared by inserting a long bamboo into the outlet pipe.
- In winter, the rate of gas production would be low. As such it is better to use a little warm water for daily feeding so that slurry with lower temperature may not disturb the system inside the digester when daily feeding is done. One way is to make the slurry in the mixing tank in the morning and allow to get warm by direct solar energy. This slurry may be allowed inside the digester when no more sun rays fall on the slurry.

### Weekly routines/Maintenance:

- The burners and lamps are to be cleaned. Particularly dirt, dust etc. if any at the ports and injector orifice of the burners are removed. Smooth gas flow must be ensured; similarly the nozzle of biogas lamp and the chimney are also cleaned.
- The water remover/water trap may be checked for any collection of water and the condensed water any be drained out, the plug is properly fitted again. If it is an automatic water remover, it may be checked for its proper functioning.
- In the case of fixed dome plants, a long bamboo may be inserted in the digester through the outlet gate and stirring is done to prevent accumulation of scum.
- In the case of KVIC model, the dry mat that must have been collected in the gap between the digester wall and the gas holder may be removed manually, so that smooth vertical motion of the gas holder is not disturbed.

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### **Monthly Routine/Maintenance:**

- Gate valve and gas pipe line be tested for leakage and rectification is done if found necessary.
- Gas taps/gas cock may need lubrication which may be done.
- Venture and mantles of gas lamps may be checked and replaced if necessary.
- If the manure pit by the side of the gas plant is full, the outlet slurry may be diverted to the next pit.

### Half Yearly / yearly Routines/Maintenance:

- Gas holder, dome and pipe line are checked for leakage and corrective steps are taken where necessary. Particularly the flexible pipe connected the gas outlet and the main pipe line (KVIC biogas plant) may be checked for leakage and replaced if found brittle.
- In the case of KVIC model, outer surface of the mild steel gas holder is prone to corrosion more than the inner surface. For protecting the gas holder from corrosion, outer surface need to be painted once in a year. Some times, it may be necessary to paint in about 6 months, if the earlier painting has not been proper and the atmosphere is humid. It is not necessary to take out the gas holder from its position. When the gas holder if full with gas, the main gate valve may be closed, entire outer surface visible above slurry level is thoroughly cleaned with water. Wire brush may be used for cleaning the rusted portion if any. Black enamel paint is applied over the entire surface. The paint may be allowed to dry for one day and then the gas should be allowed to pass in the pipe line for routine use.
- Worn out accessories are to be repaired or replaced.
- The manure from the pits which are full is removed for manuring purpose and the pits are kept ready for further use.



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Latitude 17° 18' 26.0712" N City & State Hyderabad, Telangana Known Place Chandrayangutta Postal Code 500005 Longitude 78° 27' 23.2092" E Country India Date & Time 03/28/2022 02:31:59



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# **Canteen:**

College has spacious canteen facility in the college. A variety of south Indian food and snack items are provided to the students and staff of the college with highest quality. Canteen has a big kitchen and kitchen staff takes extra care to provide the students and staff with nutritious and hygienic food in the campus canteen. Food items are prepared with RO treated water. It also provides light refreshment like packed snack items, cakes, veg. puff, beverages etc to the students and staff of the college.



Latitude 17° 18' 27.04428" N City & State Hyderabad, Telangana Known Place Chandrayangutta Postal Code 500005(4:07 Longitude 78° 27' 22.50468" E Country India Date & Time 03/24/2022 02:07:58

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