

**SURVEILLANCE AUDIT REPORT FOR ASPECTS OF
ENVIRONMENT**

&

**SURVEILLANCE AUDIT REPORT FOR GREEN
CAMPUS MANAGEMENT**

OF

GLOBAL ACADEMY OF TECHNOLOGY

RAJARAJESWARI NAGAR, BENGALURU – 560 098

DECEMBER 2025



ECO ENERGIME ENGINEERS LLP

ENHANCING RESOURCE EFFICIENCY

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ACKNOWLEDGEMENTS

We are thankful to the management of **Global Academy of Technology, Bengaluru** for the support, guidance and, giving us the opportunity to be involved in this very interesting and challenging assignment.

We would be happy to provide any further clarifications, if required, to facilitate the implementation of the recommendations.

We received full co-operation and support from the concerned personnel/ staff members of the college. They took key interest and gave valuable inputs during the course of study. We would like to thank:

Principal – Global Academy of Technology, Bengaluru

And other Staff in personnel who have given full co-operation and support. They took a keen interest and gave valuable inputs during the course of study.



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Green Audit | Electrical Safety Audit | Occupational Health and Safety Audit

Bureau of Energy Efficiency Accredited Energy Audit Firm (AEA)

Certificate


This is to certify that M/s. Eco Energime Engineers LLP, Bengaluru has conducted **Aspects of Environment Audit and Green Campus Management – Surveillance Audit Study of “Global Academy of Technology, Rajarajeswari Nagar, Bengaluru”** during December 2025.

The audit involves field visit, observations, verification of bills, log books, data base, maintenance registers and interview with staffs, and this gives an overview of the existing system. In an opinion and to the best of our information and according to the information given to us, said Aspects of Environment Audit and Green Campus Management Audit Study gives a true and fair view in conformity with auditing principles.

Global Academy of Technology, Rajarajeswari Nagar, Bengaluru, has taken substantial steps towards reducing the environmental footprint by adopting various institutional initiatives towards building a sustainable future.

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EEELLP ACKNOWLEDGEMENT

EEELLP Team thanks the Management of **Global Academy of Technology, Rajarajeswari Nagar, Bengaluru** for assigning this interesting work to us. We appreciate the cooperation extended to our team during the entire process.

Our special thanks are to Principal, Head of Departments, and Team of faculty members for giving us necessary inputs to carry out this very vital exercise, who were actively involved while collecting the data.

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DISCLAIMER

The audit team has prepared this report for **Global Academy of Technology, Rajarajeswari Nagar, Bengaluru** based on input data submitted by the representatives of College complemented with the best judgment capacity of the expert team.

While all reasonable care has been taken in its preparation, details contained in this report have been compiled in good faith based on information gathered.

It is further informed that the recommendations are arrived following best judgments and no representation, warranty or undertaking, express or implied is made and no responsibility is accepted by Audit Team in this report or for any direct or consequential loss arising from any use of the information, statements or forecasts in the report.

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ABBREVIATION AND ACRONYMS

1.	A	:	Amperes
2.	DG	:	Diesel Generators
3.	E-Waste	:	Electronic Waste
4.	etc.	:	Etcetera
5.	FTL	:	Fluorescent Tube Light
6.	GHG	:	Green House Gas
7.	Hz	:	Hertz
8.	HP	:	Horse Power
9.	HT	:	High Tension
10.	I	:	Current
11.	ICT	:	Information and Communications Technology
12.	kL	:	Kilo Liters
13.	kV	:	kilo volt
14.	kVA	:	kilo volt ampere
15.	kW	:	Kilo Watt
16.	kWh	:	kilo Watt hour
17.	kW _p	:	kilo Watt peak
18.	LCD	:	Liquid Crystal Display
19.	LED	:	Light Emitting Diode
20.	MoU	:	Memorandum of Understanding
21.	NA	:	Not Applicable
22.	NAAC	:	National Assessment and Accreditation Council
23.	Nos.	:	Numbers
24.	NSS	:	National Service Scheme
25.	Rs.	:	Rupees
26.	RR. No.	:	Revenue Register Number.
27.	S. No.	:	Serial Number
28.	Sq. Ft.	:	Square Feet
29.	Sq.m.	:	Square Meter
30.	SRTPV	:	Solar Roof Top Photo Voltaic
31.	TL	:	Tube Light
32.	TR	:	Ton of Refrigeratio
33.	UG	:	Under Graduate
34.	V	:	Volts
35.	W	:	Watts
36.	Wi-Fi	:	Wireless Fidelity
37.	W _p	:	Watt peak
38.	#	:	Number

EXECUTIVE SUMMARY

Conducting Surveillance Quality Audit covering areas such as water audit, energy audit, waste management audit, green campus management audit and environment audit (carbon foot print perspective only), in college helps to increase the awareness levels of stakeholders, staffs and students, to understand its advantages towards impact on sustainable future.

The Global Academy of Technology, Rajarajeswari Nagar, Bengaluru is very **well maintained, clean and neat**, which emphasis the resource allocation (man power, finance and support) by management and importance given for **clean and hygiene environment for students, staffs and stakeholders**.

The environmental awareness initiatives are **substantial**. The installation of solar PV systems, solar hot water systems, Heat pump based hot water system, STP treated water for flushing / gardening purposes, and rain water harvesting system are is **noteworthy**. Besides, environmental awareness programme initiated by the management and administration shows how the campus is going green.

As part of Quality Audit of campus, we carried out campus monitoring, including Illumination and Ventilation of the class room. It was observed that Illumination and Ventilation is **adequate** considering natural light and fresh air circulation.

From the Quality Audit study, it was observed the college had taken various initiatives and implemented best practices in conserving natural resources that include:

A Best Practices Implemented for Energy Conservation

- Day light integration in class rooms, staff rooms, hostels and common areas
- Use of LED lights for interior (class rooms, office rooms, hostels, common areas, etc.) and external applications (street lights)
- Grid tied Solar Roof Top Photo Voltaic (SRTPV) system for power generation
- Use of energy efficient air conditioning systems such as VRV and inverter AC units
- Use of Solar water heaters and heat pumps for hot water generation
- Use of LED/ LCD monitors
- Use of sign boards and posters for awareness creation

Surveillance Quality Audit will be a valuable tool in the management and monitoring of environmental and sustainable development programs of the college. The cumulative savings for two years (23-24 & 24-25) of the above initiatives are given in table below.

S. No.	Description	Details	Energy savings, kWh	Cost Savings, Rs. Lakh	Investment Cost, Rs. Lakh	CO2 emission reduction
1	Solar Roof Top Photovoltaic System	150 kWp	367500	35	135	290.4
2	Sewage Treatment Plant	200 kLD	--	31.8	150	--
4	Solar Water Heater	20 kL	348837.2	33.2	30	275.6
5	LED Fixtures		137600	13	10.7	108.8
7	Energy Efficient Air Conditioning Units	300 TR	672000	53.8	90	512.8
8	Heat Pumps	2 Nos.	279070	26.6	12	220.4
	Total			193.4	427.7	1408

The various initiatives implemented have resulted in **Rs. 427.7 lakh** of cost savings for two years (23-34 & 24-25) and **1408 MT of CO₂** emission reduction, which is **substantial achievement**.

B Best Practices Implemented for Water Conservation

- Installation of Sewage Treatment Plant for waste water treatment and reuse
- Installation of low flow taps
- Installation of borewell type ground water recharge pits
- Installation of Rain water harvesting systems
- Regular testing of water quality
- Posters for water conservation

C Best Practices Implemented for Waste Management

- Installation of Dust bins
- MoU for E-Waste management
- Regular cleaning of campus
- Installation of STP for waste water management
- Use of sign boards and posters for awareness creation

D Best Practices Implemented for Green Campus Management

- Campaign on Plastic free campus
- Green landscaping
- Organic manure for plants
- Regular maintenance of greeneries
- Use of sign boards and posters for awareness creation

Apart from the above the campus has around 2400+ trees and plants, which contributes in absorbing of **50 MT** of **CO₂** per year.

1. INTRODUCTION

Global Academy of Technology (GAT), established in the year 2001, is one of the most sought-after engineering and management colleges in Bengaluru, Karnataka. Located in a sprawling campus of 10-acre land, GAT is a campus ideal for students to hone their academics in an atmosphere of optimism.

GAT provides ample opportunities for various co-curricular and extra-curricular activities for the students. The campus brims with more than 3500 students and 300 experienced staff involved in effective Teaching and Learning Process. Academics is supplemented with mentoring, peer learning and counselling to ensure holistic development of students. GAT has academic alliances with various institutions, industries, and research organizations to provide industry perspective to the students.

VISION

“Become a premier institution imparting quality education in engineering and management to meet the changing needs of society”

MISSION

- Create environment conducive for continuous learning through quality teaching and learning processes supported by modern infrastructure
- Promote Research and Innovation through collaboration with industries
- Inculcate ethical values and environmental consciousness through holistic education programs

Facilities available for physical wellness

The management has provided playground for sports activities. Pictures of the playground (cricket, volleyball, basketball, are given in figure 1.1, indoor game area is shown in figure 1.2, and gym area is given in figure 1.3..



Figure 1-1: Playground in the college campus

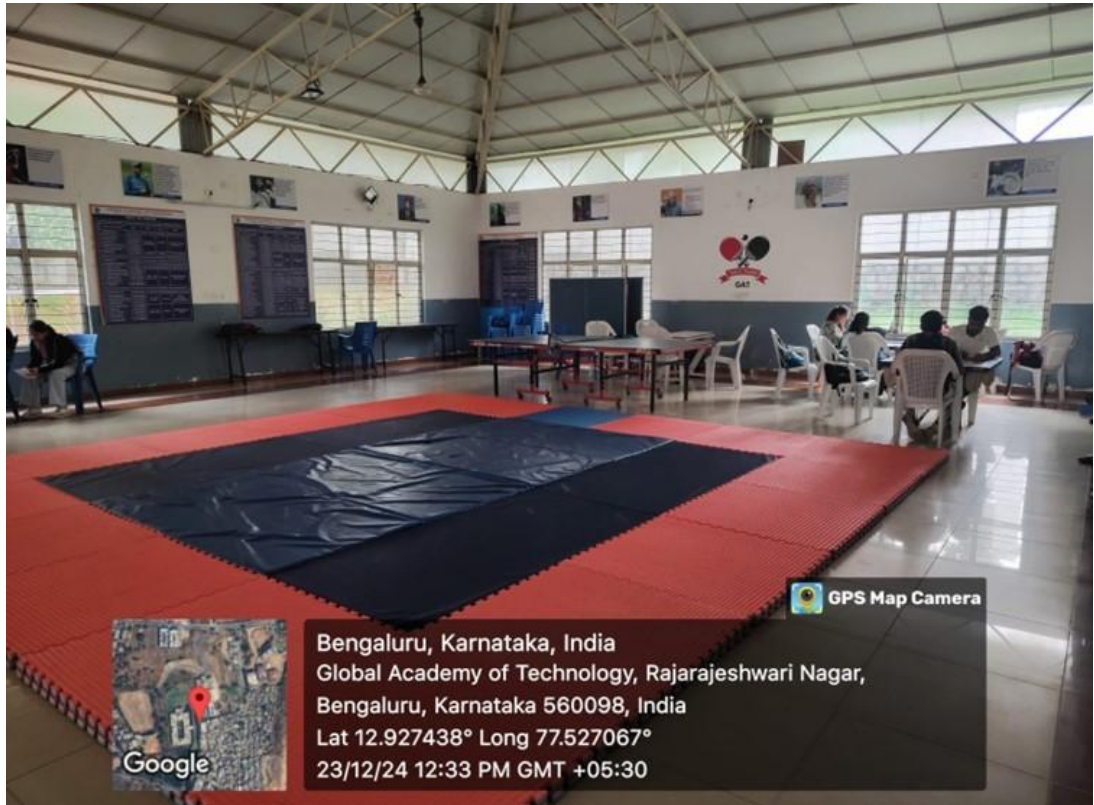


Figure 1-2: Indoor game

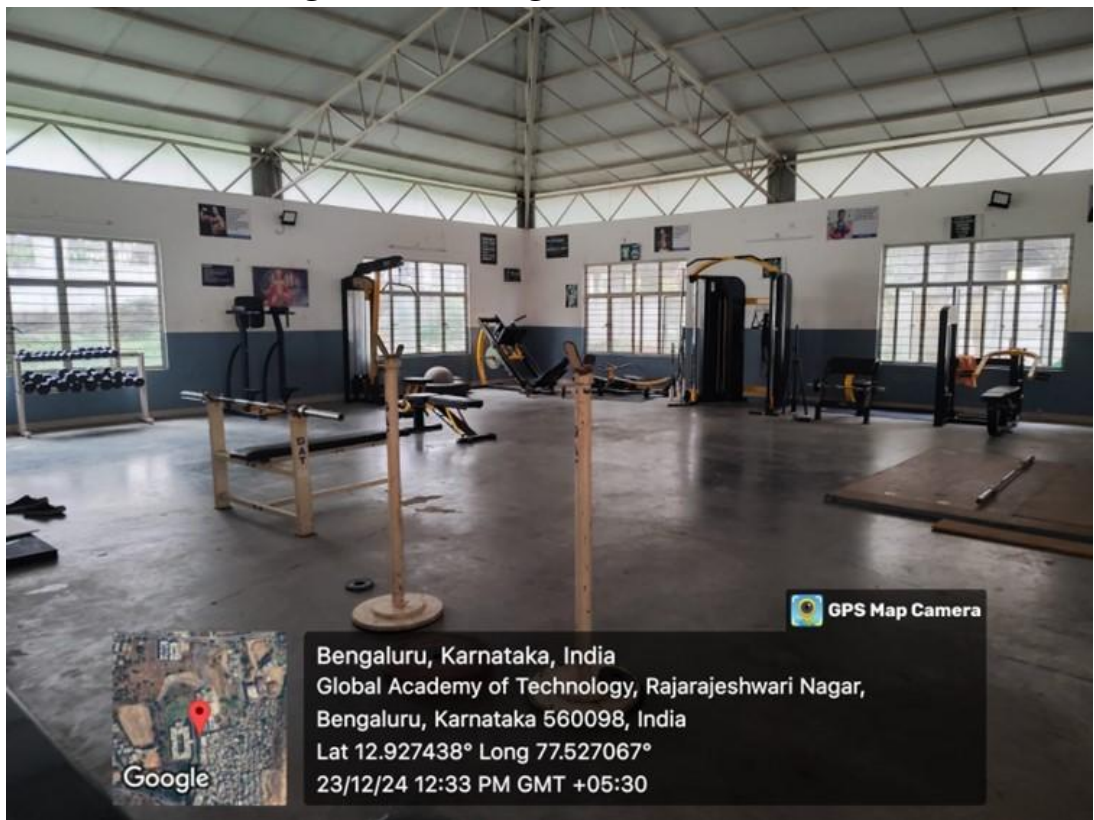


Figure 1-3: Indoor gym

Overview of Quality Audit:

Quality Audit helps college / facility to:

- Understand the usage of electricity, water and other natural resources
- Identify opportunities to conserve various natural resources
- Identify various technological improvements
- Evaluate the techno-commercial of identified conservative measures
- Create awareness among the students and staff
- Disseminate the commitment of management towards saving nature
- Develop a culture among students, staff and management to be socially responsible

2. PRE – AUDIT PHASE

A pre-audit meeting is a prerequisite for the Audit; it helps to meet and discuss about the schedule and documents required during the audit. The pre-audit meeting was conducted online. During the meeting, introduction of team members, scope and objectives of the audit were discussed.

Management Commitment

The Management of the college has shown significant commitment towards Quality Auditing during the pre-audit meeting. They were ready to encourage all green activities. It is decided to promote all activities that are environment friendly such as awareness programmes on the environment, campus farming, planting more trees on the campus etc., after the Quality Auditing.

College administration is vital to the process of realizing campus sustainability, and college policy is an essential instrument for any substantial change in the campus environment.

Scope and goals of Quality Auditing

A clean and healthy environment aids effective learning and provides a conducive learning environment. There are various efforts around the world to address environmental education issues. Quality Auditing is one among them for educational institutions.

Once a baseline is established, the data can serve as a point of departure for further action in campus greening. Existing data will allow the college to compare its programs and operations with those of peer institutions, identify areas in need of improvement, and prioritize the implementation of future projects.

This data will also provide a basis for calculating the economic benefits of resource conservation projects by establishing the current rates of resource use and their associated costs. This audit initiative focused initially on educating colleges and universities through workshops, guidebooks, fact sheets and ensuring compliance through inspections and self-audits.

3. ON-SITE AUDIT PHASE

3.1. Scope / Target Areas of Quality Auditing

3.1.1. Water Audit

Water Audit addresses water consumption, water sources, appliances and fixtures. Aquifer depletion and water contamination are taking place at unprecedented rates. It is therefore essential that any environmentally responsible institution should examine its water use practices.

3.1.2. Energy Audit

Energy Audit addresses energy consumption, energy sources, energy monitoring, lighting, appliances, and vehicles. Energy use is clearly an important aspect of campus sustainability.

3.1.3. Waste Management Audit

Waste Audit addresses waste production and disposal, plastic waste, paper waste, food waste, and recycling. Municipal solid waste has a number of adverse environmental impacts, most of which are well known and not in need of elaboration.

3.1.4. Green Campus Management Audit

Green campus initiatives are becoming an integral part of modern day's university systems. Green campus Audit helps in maintaining the air and water clean. It regulates the climatic conditions and provides a healthy and comfortable environment for living.

3.1.5. Environment Audit (Carbon Footprint Perspective)

Environment Audit addresses the usage of fossil fuels (coal, diesel, petrol and gas). The mode of commute to and from college each day has an impact on the environment through the emission of greenhouse gases into the atmosphere by the burning of fossil fuels.

3.2. Audit Methodology and Approach

The methodology and approach adopted for the study involve various steps that include:

- Review of Document and records
- Review of Policies
- Review of MoU
- Review of various measures implemented
- Site Walkthrough
- Data Collection
- Interviews

3.2.1. Review of Document and Records

Electricity bills, equipment register, list of appliances, office registers, internal quality audit document, purchase document, were reviewed and relevant data and inputs required for analysis have been collected.

3.2.2. Review of Policies

College has various policies that include safety policy and Anti-ragging policy.

A. Safety Policy:

An organization's safety policy is a recognized, written statement of its commitment to protect the health and safety of the students and employees, as well as the surrounding community.

All the students, teaching and non-teaching staff, maintenance and house-keeping staff have been given training to use fire extinguishers in emergency situations of fire and explosion. Fire extinguishing cylinders have been installed in each floor and in laboratory areas. The fire extinguishers are shown in figure 3.1.



Figure 3-1: Fire Extinguisher installed in the floors

B. Anti-Ragging

Anti-Ragging Committee will be the supervisory and advisory committee in preserving a culture of Ragging Free Environment in the college campus. 'No – Ragging' poster is shown in figure

The sample image of Anti-ragging poster is shown in figure 3-2.



Figure 3-2: Anti-ragging poster

3.2.3. Review of various measures implemented

During the Quality Audit study, it was observed the college has taken various initiatives in conserving natural resources that include:

- Day light integration in class rooms, staff rooms, hostels and common areas
- Use of LED lights for interior (class rooms, office rooms, hostels, common areas, etc.) and external applications (street lights)
- Grid tied Solar Roof Top Photo Voltaic (SRTPV) system for power generation
- Use of energy efficient air conditioning systems such as VRV and inverter AC units
- Use of Solar water heaters and heat pumps for hot water generation
- Use of LED/ LCD monitors
- Use of sign boards and posters for awareness creation
- Installation of Sewage Treatment Plant for waste water treatment and reuse
- Installation of low flow taps
- Installation of borewell type ground water recharge pits
- Installation of Rain water harvesting systems
- Regular testing of water quality
- Installation of Dust bins
- MoU for E-Waste management
- Regular cleaning of campus
- Campaign on Plastic free campus
- Green landscaping
- Organic manure for plants
- Regular maintenance of greeneries

3.2.4. Site Walk through

Site walk through was conducted with staff members and audit team members. They have shown very keen interest in the data collection process and methods to be followed in field data collection. The staffs have given inputs and suggestions for resource conservation as well.

College Infrastructure

College campus has various blocks and departments. Each floor has state of the art class rooms, staff rooms, laboratories libraries and many more. Details of infrastructure are as follows:

- Sports and Games
- Basketball Court
- Volleyball Court
- Play Ground

- Cafeteria
- Auditorium
- Smart Class room
- Seminar Halls
- Conference Rooms
- Meeting Room
- Transport
- Hostel
- 24/7 Security
- Library
- Staff Room

All the classrooms and staff rooms are well ventilated and the integration of day-light is well utilized. This has helped in optimized usage of electricity for lights and fans during day time.

3.2.5. Interviews

To collect the various data, information and operating patterns, interviews were conducted with college staff (Principal, teaching staff, non-teaching staff) and students. The consolidated information from the interviews is given in the following sub-sections.

4. WATER AUDIT

4.1. Facility description

The water audit study involved carrying out various observations and analysis, to realistically assess usage of water and potential for water conservation.

Borewell is the only source of water available, for facilitating the water supply requirement of the entire campus.

Four numbers of borewell are available in the college campus, and one number of borewell is available in hostel. The location and name of the borewells are given in table 4-1.

S. No.	Location	Name
1	College campus	Borewell 1 to Borewell 4
2	Hostel	Hostel borewell 1

Table 4-1: Details of Borewell

The image of borewell is shown in figure 4-1.



Figure 4-1: Borewell

The water from borewell is received in sump located near the lawn area. From this sump, the water is pumped to overhead tanks. From this overhead tank, the water is distributed to the entire campus. In hostel, the borewell water is pumped to the sump, from the sump the water is transferred to overhead tank with help of submersible pump. Apart from the raw water sump, there are sewage water college sump and treated water storage sump. The details of sump location, name, capacity and source of water is given in table 4-2.

S. No.	Location	Source of water
1	Near lawn area	Borewell
2	STP Area	Sewage water
3	STP Area	STP Treated water storage

Table 4-2: Details of sump



Figure 4-2: Sumps in Campus

From the sumps the water is pumped to RCC overhead tanks using ground mounted pump. The image of the overhead tanks is shown in figure 4-3.



Figure 4-3: Overhead tanks

Based on the source, usage, type and recycling, water is classified as following types in the college campus that include:

- Raw Water
- Drinking Water
- Sewage Water

Details of the various types of water usages are discussed in detail, in the following sections.

4.1.1. Raw Water System

The raw water is consumed in the following areas:

- RO Input
- Washrooms
- Laboratories
- Canteen

4.1.2. Drinking Water in College campus

20 litre water cans are purchased for drinking water purpose in the college. The drinking Water dispensers / water can with glass or bottle are available in all floors to provide drinking water. The drinking water dispenser available in college for drinking purposes is shown in figure 4-4.



Figure 4-4: Drinking water dispenser available in floors

4.1.3. Drinking Water in Hostel

One number of RO plant is installed in the hostel at terrace location to meet the drinking water requirements in the hostel. The raw water from the over-head tank in terrace is received to the RO plant. The water is purified in RO plant and stored in RO water storage tank. From this RO water storage tank, pipe lines are drawn to each floor in the hostel and locations are available for drinking water collection for student and in kitchen area for cooking purposes. Figure 4.5 represents the RO plant installed in hostel.



Figure 4-5: RO Water plant in Hostel

4.1.4. Hot Water System

The hot water is mainly consumed in hostels for bathing purposes. The hot water requirement for bathing is met by solar water heater system and heat pump installed in the hostel terrace.

The pictures of heat pump and solar water heater installed in the hostel are given in figure 4-6.



Figure 4-6: Heat pump and solar water heater installed in the college

4.1.5. STP treated water usage

The STP treated water is used for gardening and cleaning purposes in the college campus. The STP treated water is distributed through out the college for gardening and cleaning purposes. The picture of STP treated water usage is shown in figure 4.7.



Figure 4-7: STP treated water usage

4.2. Institutional Initiatives for Water Conservation

4.2.1. Rain Water Harvesting

Rainwater harvesting is the simple process or technology used to conserve rainwater by collecting, conveying, purifying and storing of rainwater for later use. Rain water harvesting pits for ground water recharge have been installed in many locations inside the college.

The benefits of rainwater harvesting system are listed below.

- Helps in reducing the water bill.
- Decreases the demand for water.
- Reduces the need of bore well water
- Promotes both water and energy conservation
- Improves the quality and quantity of groundwater
- It is an excellent source of water for landscape irrigation

Picture of the rain water harvesting pits is shown in figure 4-8.



Figure 4-8: Rain Water Harvesting Pits

4.2.2. Sewage Treatment Plant

The procedure for removing contaminants from the wastewater basically from the household sewage is called sewage treatment. It has to undergo the chemical, physical and biological procedure to remove these contaminants and give out an environmentally safe treated effluent. A semi-solid slurry called the sewage sludge is the by-product of the sewage treatment. This sludge is further processed before it is suitable for land application.

The institution has installed STP. The STP is shown in figure 4-9.



Figure 4-9: STP Area

The estimated cost of savings of installing STP plant is given in table 4.3.

S. No.	Description	Unit	Savings for 23-24	Savings for 24-25	Total Savings
1	STP capacity	kLPD	120	120	120
2	Quantity of final treated water from STP	kLPD	90	90	90
3	Quantity of water reused @ 50% utilization factor	kLPD	67.5	67.5	67.5
4	No. of working days per year	days	250	250	250
5	Annual Quantity of water reused (saved)	kLPD	16875	16875	33750
6	Average water cost	Rs/L	0.094	0.094	0.094
7	Annual cost savings achieved	Rs. lakh/year	15.9	15.9	31.8
8	Investment Cost	Rs. Lakh	75	75	75

Table 4-3: Annual cost savings by installation of STP plant

Note: The estimated cost of savings of installing STP plant for 24-25 is assumed to be same as previous year 23-24.

4.2.3. Dual water piping system for wash rooms

The toilets and rest rooms in the hostel blocks have been provided with dual water piping system. The dual water piping system consists of raw water piping network and STP treated final water piping network.

The STP treated final water is used for flushing in the toilets.

This method of processing the sewage water to convert as treated water, and utilizing in all possible areas would have resulted in substantial amount of water savings.

4.2.4. STP treated water for garden use

The treated STP water is used for watering the trees and garden. For this purpose, dedicated pipeline is provided. Taps are provided at various locations to facilitate the watering of garden.

The tap provided for watering the garden is shown in figure 4-10.



Figure 4-10: STP treated water usage in garden

4.2.5. Ground Water Recharge

Rainwater harvesting is the simple process or technology used to conserve rainwater by collecting, conveying, purifying, storing and utilizing. The process of recharging the ground water by utilizing rain water harvested, is practiced by ground water recharge pits. Borewell type rain water recharge pits have been installed. The picture of borewell type ground water recharge pit is shown in figure 4-11.

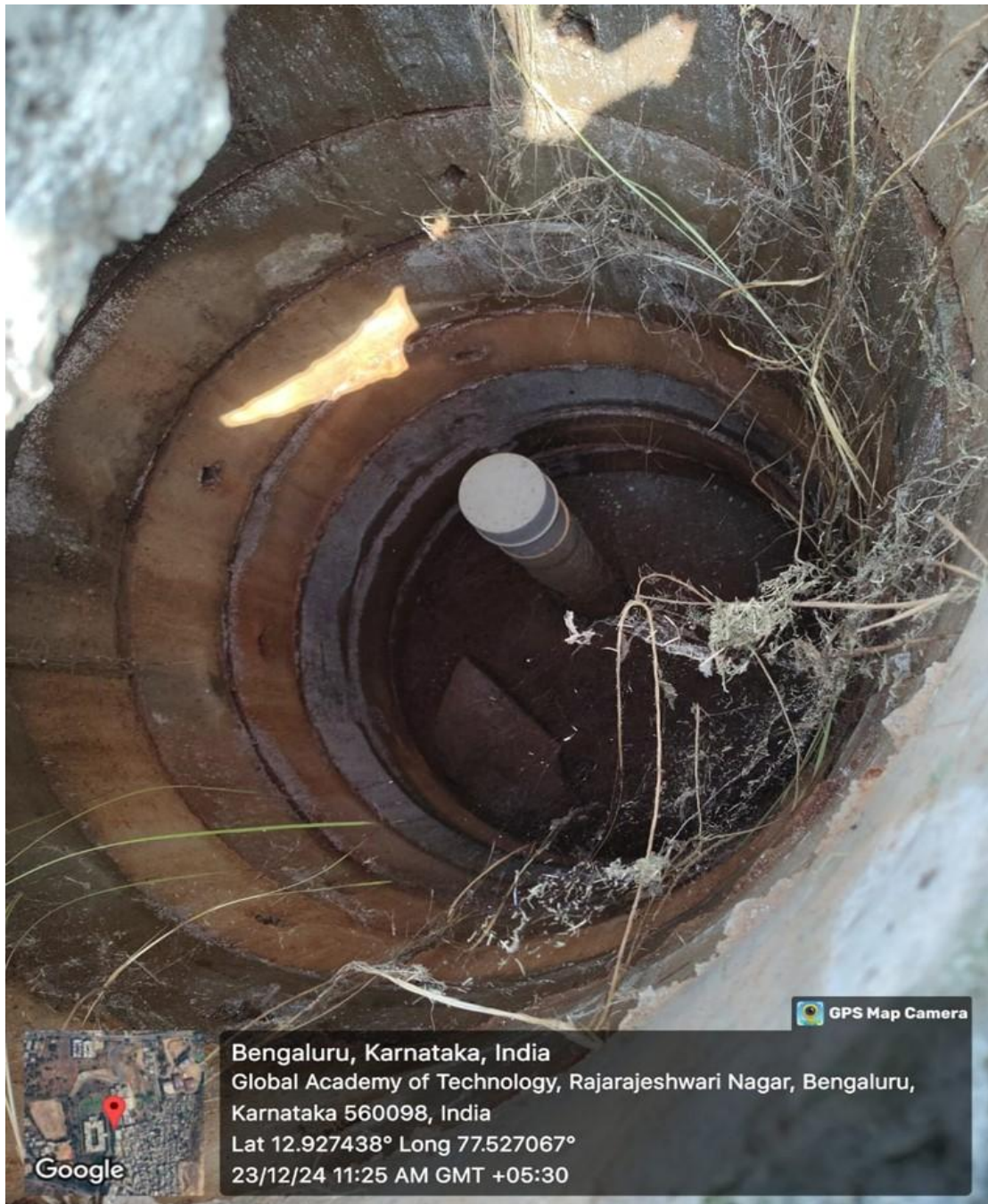


Figure 4-11: Borewell type ground water recharge pit

4.2.6. Low flow taps

Low flow taps perform better with less water usage when compared to regular taps. These taps compensate the water pressure and give defined water flow rate, therefore less water wastage & more savings on water bills. The advantages of low flow taps are as follows:

- Saves water with optimized flow rate
- Reduced water bill
- Different flow patterns (shower/Foam)
- Annual Savings up-to 10,000 litres/Year/tap

Features of Aerator for taps:

- The aerator is a small attachment that either fits onto the end of the tap or can be inserted inside of the existing spout. These water saving devices will control the amount of water that flows through the tap without affecting the water pressure as they mix the water with air which will save water and money.
- The aerators will separate a single flow of water into many tiny streams which introduces the air in to the water flow. Also, as there is less space for the water to flow through, the water flow is reduced, resulting in water savings.
- As the water pressure is maintained, most people don't notice a difference in the amount of water coming out of an aerated faucet yet benefit from the water efficiency
- Tap aerators are of most use to those with older taps which run on average around 15 litres of water per minute. Adding an aerator to an older tap can reduce this to as little as 6 litres of water per minute.
- The biggest water saving benefit is achieved in the bathroom / hand wash / kitchen sinks where we are often turning the taps on and off to wash our hands and for other uses.

The picture of taps with aerators used in the college is shown in figure 4-12.




Figure 4-12: Sample photo of tap with aerator in the wash rooms

4.2.7. Regular Water Quality Testing

Testing water quality on a regular basis is an important part of maintaining a safe and reliable source. The test result allows to properly addressing the specific problems of a water supply. This will help ensure that the water source is being properly protected from potential contamination, and that appropriate treatment is selected and operating properly.

The STP treated water is tested regularly. The sample STP treated water test report is shown in figure 4-13.



BANGALORE ANALYTICAL RESEARCH CENTRE PVT LTD
 Sy.No.57, Shree Vijayraja Estate,
 ChokkanaHalli,Jakkur Post
 Bangalore-560064 Tel: 080 29652966
 Email:enquiry@barcindia.com

Certificate of Analysis					
Report No.: BARC/ENV/23/01/0370		LIMS No.: BARC/23/01/0370		Date Of Report: 12/01/2023	
ULR No : TC71252300000673F					
Customer Details					
Name Of Customer:			National Education Foundation.		
Address:			R R Nagar, Bangalore-560098		
Sample Drawn By Laboratory (Yes/No) : Yes			Reference : verbal		
Sample Details					
Sample Particulars	: STP treated water	Department/Sub Department	: Environment		
Sampling Point / Location	: After Filtration Tank	Sample Qty	: 2lts+250ml		
Mfg. Date	: Not Applicable	Expiry date of sample	: Not Applicable		
Date of sampling	: 06/01/2023	Date of Receipt	: 06/01/2023		
Sample Condition	: Satisfactory	Batch No/Sample Marked	: GAT hostel		
Sampling of Type	: Grab	Nature of sample	: STP treated water		
Sampling SOP	: BARC/WI/MB-014,BARC/TP/C-044				
Analysis Result					
Date of Analysis			: 07/01/2023		
Date of Completion:			: 12/01/2023		
Sr. No.	Parameter	Limit	Unit	Result	Method
CHEMICAL					
1	pH value at 25° C	6.5-9.0	Not Specified	7.6	IS 3025(Part-11):2022
2	Total suspended solids	Not more than 20	mg/L	4.0	IS 3025(Part-17):1984
3	Biochemical Oxygen Demand,3days at 27° C	Not more than 10	mg/L	5.0	IS 3025(Part-44):1993
4	Chemical Oxygen Demand O2	Not more than 50	mg/L	17.0	IS 3025(Part-58):2006
5	Ammonical Nitrogen as N	Not more than 5	mg/L	<1.0(BDL)	IS 3025(Part-34):1988
6	Total Nitrogen as N	Not more than 10	mg/L	8.0	IS 3025(Part-34):1988
MICROBIOLOGY					
7	Faecal Coliform	Less than 100	MPN/100ml	<1	IS 1622 : 1981
Description : Colourless liquid having unobjectionable odor.					
Remark : BDL: Below Detection Limit.					
****End Of Report****					
SOUMYA U Tested By		TASMIYA Tested By		Raghu Prasad Authorized By	
				Ravikumar.R Authorized By	

Page 1 of 2

Figure 4-13: STP treated water test report for 2023-24

Certificate of Analysis						
Report No.: BARC/DW/2G/02/0191/RV0		LIMS No.: BARC/DW/2G/02/0191		Date Of Report: 11/02/2026		
ULR No :TC71252600006045F						
Customer Details						
Name Of Customer:		National Education Foundation				
Address		R.R.Nagar, Bangalore-560038				
Sample Drawn By Laboratory (Yes/No) :		Yes		Reference : Verbal		
Sample Details						
Sample Particulars	Borewell Water		Department/Sub Department		Environment	
Sampling Point / Location	Direct Bore well water tap		Sample Qty		6.5ltr-250 ml - Sterilize Plastic Bottle	
Mfg. Date	Not Specified		Expiry date of sample		Not Specified	
Date of sampling	06/02/2026		Date of Receipt		06/02/2026	
Sample Condition	Satisfactory		Batch No./Sample Marked		Not Specified	
Sampling of type	Grab		Nature of sample		Liquid	
Sampling SOP	BARC/SOP/MB- 014,BARC/TP/C-014					
Analysis Result						
Date of Analysis		: 07/02/2026		Date of Completion: : 11/02/2026		
Sr. No.	Parameter	Limit 1	Limit 2	Unit	Result	Method
CHEMICAL						
1	Color	5	15	Hazen	BLQ(LOQ:5)	IS 3025(Part-04):2021
2	Odor	Agreeable	Agreeable	Not Specified	Agreeable	IS 3025(Part-05):2018
3	pH Value	6.5-8.5	No relaxation	Not Specified	7.5	IS 3025(Part-11):2022
4	Taste	Agreeable	Agreeable	Not Specified	Agreeable	IS 3025(Part-08):1984 RA 2017
5	Turbidity	1	5	NTU	0.1	IS 3025(Part-10):2023
6	Total Dissolved Solids	500	2000	mg/L	895	IS 3025(Part-16):2023
7	Calcium as Ca	75	200	mg/L	90	IS 3025(Part-10):2024
8	Chloride as Cl	250	1000	mg/L	160	IS 3025 (Part-32):1988 RA 2019
9	Fluoride as F	1.0	1.5	mg/L	0.8	APHA 24th Edition 4500-f:2024
10	Residual Free Chlorine as Cl ₂	0.2	1.0	mg/L	BLQ(LOQ:0.05)	IS 3025(Part-26):2021
11	Magnesium as Mg	30	100	mg/L	49	IS 3025(Part-16):2023
12	Mineral Oil	0.5	No relaxation	mg/L	BLQ(LOQ:0.05)	IS 3025 (Part-39)Cl.6 : 2021
13	Nitrate as NO ₃	45	No relaxation	mg/L	29.8	IS 3025(PART-34/Sec:1):2024
14	Sulphate as SO ₄	200	400	mg/l	45	IS 3025(PART-24/Sec:1):2022
15	Total Alkalinity as CaCO ₃	200	600	mg/L	510	IS 3025(Part-23):2023
16	Total Hardness as CaCO ₃	200	600	mg/L	425	IS 3025(Part-21):2009
17	Ammonia (as total ammonia-N)	0.5	No relaxation	mg/L	BLQ(LOQ:0.05)	IS 3025 (Part-34):2023
18	Phenolic Compounds as C ₆ H ₅ OH	0.001	0.002	mg/l	Nil {LOQ:0.001}	IS 3025(Part-44/Sec:1):2022
19	Anionic detergents as MBAS	0.2	1.0	mg/L	BLQ(LOQ:0.1)	IS 3025(PART-68):2019

Figure 4-14: Borewell water test report for 2024-25

4.2.8. Regular maintenance of water distribution system

In order to create awareness regarding water conservation, sign boards / posters indicating save water, conserve water were made available at appropriate locations like handwash area, drinking water tap points.

The sample bill for plumbing material purchase bill is shown in figure 4-14.

(ORIGINAL FOR RECIPIENT)

Tax Invoice

Invoice No: **DS51237** e-Way Bill No: **26-Nov-24**
 Date: **26-Nov-24**
 Delivery Note: **1418888105**
 SUPP-F-16-24, SLIP-25-11-24
 Dispatch Doc No: **26-Nov-24, 26-Nov-24**
 Delivery Note Date: **26-Nov-24, 26-Nov-24**
 Dispatched through: **BENGALURU**
 Motor Vehicle No: **KA41EQ7348**
 Bill of Lading/RRR No: **KA41EQ7348**

JAI MATA DI DUGGAL SANITARY STORE
 #21, BENQ NAWAB STREET, S.P. ROAD CROSS,
 BENGALURU (INDIA)
 Karnataka - 560002, India
 GSTIN/UIN: 29AC1FD2692N1Z0
 State Name: Karnataka, Code: 29
 Contact: 080-4124-1500, 080-41-03063
 E-Mail: dswholesale@gmail.com

Buyer (Bill To):
GLOBAL ACADEMY OF TECHNOLOGY (BENGALURU)
 IDEAL HOMES TOWNSHIP
 RAJAJESHWAR NAGAR, OFF. Mysore ROAD, BENGALURU (INDIA)
 Karnataka - 560008, India
 State Name: Karnataka, Code: 29
 Place of Supply: Karnataka
 Contact person: **UNIT OF NATIONAL EDUCATION FOUNDATION**
 Contact: **080 2860 3158**

Sl No	Description of Goods	HSN/SAC	GST Rate	Quantity	Rate per	Amount	
1	D200 HEALTH FAUCET SET (INDIAN/ IMPORT) / ONLY GUN	39173100	18 %	6 Nos	120.00 Nos	720.00	
2	SHOWER TUBE PVC 40" 5362 ONIDA	39269099	18 %	6 Nos	325.00 Nos	1,950.00	
3	NICY N010 HEALTH FAUCET SET + 60" CP PULL (SLEEVE)	84818020	18 %	24 Nos	975.00 Nos	23,400.00	
4	NICY N002 ANGLE COCK EXTRA HEAVY CP VIGNETTE (S.S.)	73249000	18 %	24 Nos	299.00 Nos	7,176.00	
5	SPINDLE C/D JAGUAR 3/4" - 4943 ONIDA	84818020	18 %	8 Nos	295.00 Nos	2,360.00	
6	SPINDLE C/D MISS 1/2" - 4941 ONIDA IBIBO	84818020	18 %	16 Nos	155.00 Nos	2,480.00	
7	TEFLON 12MM X 10MTR 5940 IBIBO	39191100	18 %	20 Nos	30.00 Nos	600.00	
8	URINAL WASTE COUPLING 4340	74182020	18 %	10 Nos	720.00 Nos	7,200.00	
9	PEARL 3001 PILLAR COCK (NEW)	84818020	18 %	8 Nos	965.00 Nos	7,720.00	
10	COPPER (CP) CONNECTION 24" 5024 IBIBO	74121000	18 %	10 Nos	545.00 Nos	5,450.00	
11	COPPER (CP) CONNECTION 18" 5023 IBIBO	74121000	18 %	8 Nos	445.00 Nos	3,560.00	
12	DSS001 SPARE SUPERFLOW BIV 9.5 BALL COCK	39249099	18 %	4 Nos	310.00 Nos	1,240.00	
13	DSS002 SPARE SUPERFLOW CONSTILATION OFV	39249099	18 %	10 Nos	720.00 Nos	7,200.00	
14	DSS003 SPARE COMP JAQUAR PUSH BUTTON 1095	84818020	18 %	10 Nos	245.00 Nos	2,450.00	
15	DSS004 SPARE COMP JAQUAR METROPOLE GLASSY 1168	84818020	18 %	10 Nos	260.00 Nos	2,600.00	
16	DSS005 SPARE COMP JAQUAR FLUSH SPINDLE OPEN 7025	84818020	18 %	14 Nos	570.00 Nos	7,980.00	
17	DSS006 SPARE COMP JAQUAR LEVER 1015	84818020	18 %	14 Nos	570.00 Nos	7,980.00	
18	DSS007 SPARE COMP JAG 32MM METROPOLE CARTRIDGE 1090	84818020	18 %	12 Nos	570.00 Nos	6,840.00	
19	DSS008 SPARE COMP JAQUAR RFV CONTROL SPINDLE SQ 027	84818020	18 %	8 Nos	570.00 Nos	4,560.00	
20	DSS009 SPARE COMP JAQUAR CONTI SPINDLE NEW 1025	84818020	18 %	8 Nos	154.50 Nos	1,236.00	
21	DSS010 SPARE COMP JAQUAR FLUSH VALVE SPRING	84818020	18 %	8 Nos	60.00 Nos	480.00	
						73,644.80	
						CGST	6,628.04
						SGST	6,628.04
						ROUND OFF	(-)0.88
						Total	86,900.00 ₹
						E & O E	

Amount Chargeable (in words): **Eighty Six Thousand Nine Hundred INR Only**

HSN/SAC	Taxable Value	Central Tax Rate	Central Tax Amount	State Tax Rate	State Tax Amount	Total Tax Amount
39173100	720.00	9%	64.80	9%	64.80	129.60
39269099	1,950.00	9%	175.50	9%	175.50	351.00
84818020	51,312.80	9%	4,618.15	9%	4,618.15	9,236.30
73249000	3,229.20	9%	290.63	9%	290.63	581.26
39191000	318.00	9%	28.62	9%	28.62	57.24
74182020	3,016.00	9%	271.44	9%	271.44	542.88
74121000	4,775.00	9%	429.75	9%	429.75	859.50
39249099	8,440.00	9%	759.60	9%	759.60	1,519.20
Total	73,644.80		6,628.04		6,628.04	13,256.08

Tax Amount (in words): **Thirteen Thousand Two Hundred Fifty Six INR and Eight paise Only**

Company's Bank Details:
 Bank Name: **KOTAK MAHINDRA BANK**
 A/c No: **9911271585**
 Branch & IFSC Code: **4TH BLOCK, JAYANAGAR 5 KKBK0000421**
 for DUGGAL SANITARY STORE

Declaration:
 WE DECLARE ALL PRODUCTS DESCRIPTION IS VERIFIED.
 SALES DONE CAN NOT BE RETURNED. EXCHANGE OF
 GOODS IS WITH ORIGINAL INVOICE ONLY. WARRANTY
 CLAIM IS ON MANUFACTURING DEFECT ONLY NOT FOR
 PHYSICALLY DAMAGED GOODS. CHINESE / IMPORTED ITEMS DON'T HOLD ANY SORT OF WARRANTY.

SUBJECT TO BENGALURU, KARNATAKA JURISDICTION
 This is a Computer Generated Invoice (ORIGINAL)

S. Anand
 21/12/24
 Total 238 Nos 86,900.00 ₹

Figure 4-15: Sample Purchase bill for water system maintenance for 2023-24

Note: No plumbing-related materials were procured during the 2024-25

4.2.9. Awareness posters on water conservation

In order to create awareness regarding water conservation, sign boards / posters indicating save water, conserve water were made available at appropriate locations like handwash area, drinking water tap points.

The sample images of awareness poster regarding water conservation are shown in figure 4-15.



Figure 4-16: Awareness posters on water conservation

5. WASTE MANAGEMENT AUDIT

5.1. Facility Description

The study involved carrying out various analyses to realistically assess waste generation.

There are different types of waste generated in the college and explained below.

S. No.	Description	Yes / No	Details
1	E-Waste	Yes	External Agency
2	Hazardous / Chemical Waste	No	NA
3	Solid Waste	Yes	External Agency
4	Dry Leaves	Yes	To Compost
5	Food Waste	Yes	Municipal Collection
6	Waste Water	Yes	STP
7	Glass Waste	No	NA
8	Unused Materials	No	NA
10	Plastic Waste	Yes	Municipal Collection

Table 5-1: Types of Waste Generated in the college

5.1.1. TYPES OF WASTE

WET WASTE: Wet waste is all the kitchen waste that we produce. These are the waste which is collected on a daily basis in the canteen, cafeteria etc.

Example: fruit peels, vegetable peels, used tea leaves etc.

DRY WASTE: Dry Waste refers to all waste items that are not considered wet/soiled items.

These are the wastes which are found in classrooms, stationery store etc.

Example: Papers, plastic, bottles etc.

Example: Sanitary dispenser, incinerator etc.

CHEMICAL WASTE: A chemical waste is any solid, liquid, or gaseous waste material that, if improperly managed or disposed of, may pose substantial hazards to human health and the environment.

Example: phenol, acids, Dettol which is used for cleaning.

WASTE WATER: Waste water is defined as that water which has lost its potential to be used for domestic purpose.

Example: Grey water and back water which generated from washrooms and kitchens.

HAZARDOUS WASTE: It is a waste which has potential threat to students and teacher's health in the campus.

Example: Chemistry lab i.e., the concentrated chemicals.

E-WASTE: It is a generic term used to describe all types of old, end-of-life or discarded electrical and electronic equipment.

Example: Used keyboards, monitors, batteries, damaged bulbs etc.

SCRAP WASTE: Scrap consists of recyclable materials, usually metals, left over from product manufacturing and consumption.

Example: Cardboards, newspaper, aluminum roofing sheets, and other metallic things etc.

5.1.2. Dry Waste Management

Separate bins are used across the campus for waste collection. Each room (Staff, class rooms, corridors, office, restrooms, and library) is provided with the separate dustbin to segregate waste.

5.1.3. Wet Waste Management

To manage the wet waste produced in the college, which is produced from kitchens of canteens in the campus, from the remains of the tiffin boxes brought by the students, teachers, & staff of the college, separate bins were placed. These wet wastes are collected and disposed through municipal collection agency.

5.2. Institutional Initiatives for Waste management

5.2.1. Dust Collection Bins

Dust collection bins are placed at the college premises. The dust collection bins are used to make the segregation easier.

The sample image of dust collection bins is shown in figure 5-1.



Figure 5-1: Dust collection bins

5.2.2. Regular cleaning of campus

Regular cleaning of campus is done to maintain overall hygiene. Cleaning activities are carried out using water and floor cleaning chemicals in bucket and mop. Mopping is done every day. The sample image of cleaning activity done in the college campus is shown in figure 5-2.

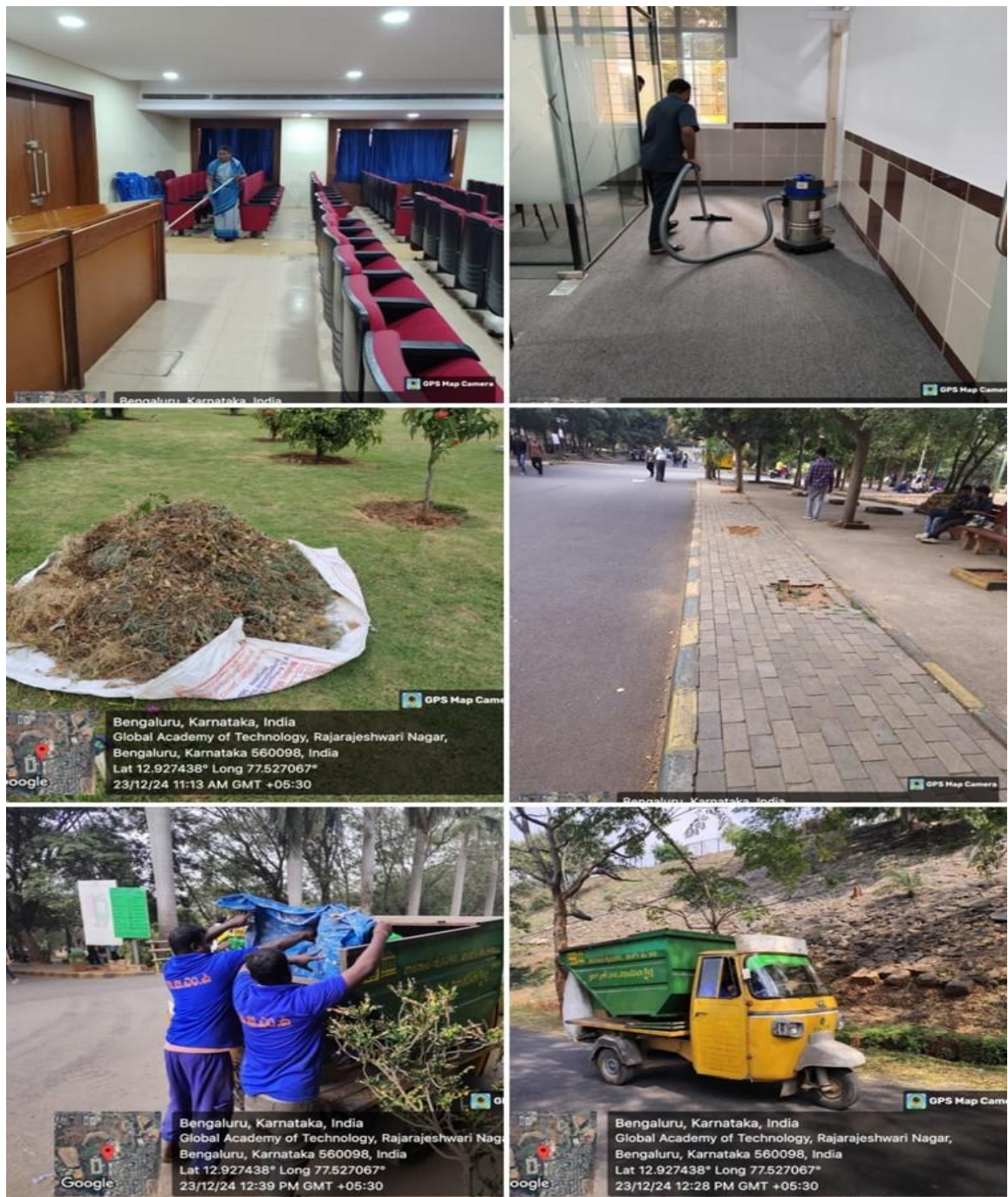


Figure 5-2: Cleaning in the college campus

5.2.3. Purchase of housekeeping materials

To keep the college campus clean and hygiene, the housekeeping materials like scrub, all-purpose cleaner spray, phenyls, acids, mops, garbage bags, chemical disinfectants, broom sticks, and waste bins are purchased regularly.

The purchased housekeeping materials are distributed to housekeeping staffs to carry out the cleaning activity. The sample image of purchase bill for housekeeping materials is shown in figure 6-3 and sample bill for purchase of dust bins are given in figure 5-3.

(ORIGINAL FOR RECIPIENT)

Mishra Enterprises
 NO.7, HALGEVADARAHALLI, BEML COMPLEX ROAD,
 R R NAGAR BANAGLORE-98
 UDYAM : UDYAM-KR-03-0186788 (Micro)
 GSTIN/UIN : 29CQNPM6987K1ZM
 State Name : Karnataka, Code : 29
 Contact : 060-49894644, +91-8073344825
 E-Mail : mishraenterprisesblr@gmail.com
 https://www.indiamart.com/mishraenterprises-bengaluru

Consignee (Ship to)
 Global Academy of Technology NATIONAL EDUCATION FOUNDATION
 SY 152 GLOBAL ACADEMY OF TECHNOLOGY,
 CAMPUS, IDEAL HOME TOWNSHIP,
 RAJARAJESHWARI NAGAR, Bengaluru, Urban,
 Karnataka, 560098
 GSTIN/UIN : 29AAATN2782J1Z6
 State Name : Karnataka, Code : 29
 Contact person : MARTIN SIR
 Contact : 9686193647, 9686193647
 E-Mail : info@gat.ac.in

Buyer (Bill to)
 Global Academy of Technology NATIONAL EDUCATION FOUNDATION
 SY 152 GLOBAL ACADEMY OF TECHNOLOGY,
 CAMPUS, IDEAL HOME TOWNSHIP,
 RAJARAJESHWARI NAGAR, Bengaluru, Urban,
 Karnataka, 560098
 GSTIN/UIN : 29AAATN2782J1Z6
 State Name : Karnataka, Code : 29
 Place of Supply : Karnataka
 Contact person : MARTIN SIR
 Contact : 9686193647, 9686193647
 E-Mail : info@gat.ac.in

Invoice No. **335** e-Way Bill No. **1520 0588 2516** Dated **20-Dec-24**

Delivery Note **335** Mode/Terms of Payment **IMMEDIATE**

Reference No. & Date. **335 dt. 20-Dec-24** Other References **MARTIN SIR**

Buyer's Order No. **335** Dated **20-Dec-24**

Dispatch Doc No. **335** Delivery Note Date **20-Dec-24**

Dispatched through **2 Wheller** Destination **Door Delivery**

Bill of Lading/LR-RR No. **Na Local dt. 20-Dec-24** Motor Vehicle No. **KA41ET7357**

Terms of Delivery **URGENT**

SI No. & Kind of Pkgs.	Description of Goods	HSN/SAC	GST Rate	Quantity	Rate (Incl. of Tax)	Rate	per	Disc. %	Amount
1	BAG	39231010	18 %	29.500 Kgs	150.00	127.12	Kgs		3,750.04
2	1 CAN	34021110	18 %	1 can	413.00	350.00	can		350.00
3	5 PCS HAND-WASH BOTTLE	39239090	18 %	5 Pcs	59.00	50.00	Pcs		250.00
									4,350.04
							CGST 9%	9 %	391.50
							SGST 9%	9 %	391.50
							Less: Round Off		(-0.04)
Total									₹ 5,133.00

Amount Chargeable (in words) **INR Five Thousand One Hundred Thirty Three Only** Previous Balance: **₹ 5,133.00 Dr**

HSN/SAC	Taxable Value	CGST		SGST/UTGST		Total Tax Amount
		Rate	Amount	Rate	Amount	
39231010	3,750.04	9%	337.50	9%	337.50	675.00
34021110	350.00	9%	31.50	9%	31.50	63.00
39239090	250.00	9%	22.50	9%	22.50	45.00
Total			4,350.04		391.50	783.00

Scan to pay **INR Seven Hundred Eighty Three Only**

Declaration: We declare that this invoice shows the actual price of The goods described and that all particulars are true and Correct.

Terms & Conditions:
 1) Goods once sold cannot be taken back under any Circumstances.
 2) Our responsibility ceases on delivery of goods.
 3) Interest at 24% per annum will be charged if the bills Remain unpaid after a force terms of payment.

Company's Bank Details
 A/c Holder's Name: **Mishra Enterprises**
 Bank Name: **SBI ACCOUNT**
 A/c No.: **40630047342**
 Branch & IFS Code: **IISC & SBIN0002215**

Customer's Seal and Signature: **MISHRA ENTERPRISES**
 No. 07, Halgevadarahalli, BEML Complex Road, R R Nagar, Bengaluru-560098

Prepared by: **MISHRA ENTERPRISES**
 Verified by: **MISHRA ENTERPRISES**
 Authorised Signatory

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 Bengaluru-560098

Figure 5-3: Sample Purchase bills for housekeeping materials for 2023-24

Tax Invoice

Krupa Marketing No 241,Arilogudi,Combound Handi,Minaker Opp State Bank Of India Cottonpet Main Road Bengaluru 560053 GSTIN/UIN : 29ACIPR4034D1ZC State Name : Karnataka, Code : 29 Contact : 9341605912,9342251230 E Mail : krupa.marketing@yahoo.co.in www.krupamarketing.co.in		Invoice No. 4100 Dated 11-Apr-2026 Delivery Note 210 Mode/Terms of Payment Supplier's Ref. Other Reference(s)					
Consignee Global Academy Of Technology Ideal Home Township Rajarajeshwari Nagar, Off Myuru Road, Bengaluru 560095, GSTIN/UIN : 29AAA1N2702J1Z6 PAN/IT No : State Name : Karnataka, Code : 29		Buyer's Order No. Dated Dispatch Document No. Delivery Note Date 2-Mar-2026 Despatched through Destination Terms of Delivery					
Buyer (if other than consignee) Global Academy Of Technology Ideal Home Township Rajarajeshwari Nagar, Off Myuru Road, Bengaluru 560095, GSTIN/UIN : 29AAA1N2702J1Z6 PAN/IT No : State Name : Karnataka, Code : 29 Place of Supply : Karnataka							
Sl #	Description of Goods	HSN/SAC	GST Rate	Quantity	Rate	per Disc. %	Amount
1	Premier Face Tissues	48183000	18 %	5 boxes	50.00	nos	250.00
2	Urinal Cakes	33074900	18 %	200.00 nos	20.00	nos	4,000.00
3	Dustbin Open Type 1st Quality	3924	18 %	10.00 nos	135.00	nos	1,350.00
4	Dry Mop Set 75 cms	9603	18 %	4.00 nos	380.00	nos	1,520.00
5	Clip & Fit Mop Set 5ft Rod	96039000	18 %	10.00 nos	175.00	nos	1,750.00
6	Chek Cloth Big	63071010	5 %	48.00 nos	11.00	nos	528.00
7	Colin 500 MI	34022090	18 %	10.00 nos	80.00	nos	800.00
8	Yellow Cotton Cloth Big	63071010	5 %	20.00 nos	15.00	nos	320.00
9	Paper Napkins Real Soft	48183000	18 %	30.00 Pkts	40.00	Pkts	1,200.00
10	Toilet Cleaning Brush Heavy Round	9603	18 %	10.00 nos	65.00	nos	650.00
11	Sabeena Dishwash Powder	3401	18 %	84.00 Pkts	27.00	Pkts	2,268.00
12	Harpic 500 MI	38089400	18 %	24.00 nos	80.00	nos	1,920.00
13	Dettol Handwash 200ml	3401	18 %	10.00 nos	84.00	nos	840.00
14	Room Freshner Springfest	33074900	18 %	24.00 nos	80.00	nos	1,920.00
15	Medimex Soap 75G	3401	5 %	24.00 nos	30.00	nos	720.00
16	Garbage Covers Medium Black	39232100	18 %	24 boxes	45.00	boxes	1,080.00
17	Garbage Covers 30x40 Green	3923	18 %	30.00 KG	120.00	KG	3,600.00
18	Cleaning Acid 5 Ltr Can	28081000	18 %	4 can	188.00	can	752.00
19	White Floor Cleaner	38089400	18 %	100.00 Ltrs	30.00	Ltrs	3,000.00
20	Soapoll	34012000	18 %	100.00 Ltrs	20.00	Ltrs	2,000.00
21	Dustbin Big with Lid	3923	18 %	1.00 nos	725.00	nos	725.00
22	Legbin Jago Dustbin Small with Lid	3923	18 %	5.00 nos	190.00	nos	950.00
continued ...							

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Figure 5-4: Sample Purchase bills for housekeeping materials for 2023-24

Tax Invoice

Krupa Marketing No 24 1,Arulogudi, Compound Nandi Marion Opp State Bank Of India Cottonpet Main Road Bengaluru 560053 GSTIN/UIN: 29ACIPR4834D1Z6 State Name : Karnataka, Code : 29 Contact : 8341605915, 83412291230 E-Mail : krupa.marketing@yahoo.co.in www.krupamarketing.co.in Consignee Global Academy Of Technology Ideal Home Township Rajarajeshwari Nagar, Off Myuru Road, Bengaluru 560088, GSTIN/UIN : 29AAATN2702J1Z6 PAN/IT No : State Name : Karnataka, Code : 29 Buyer (if other than consignee) Global Academy Of Technology Ideal Home Township Rajarajeshwari Nagar, Off Myuru Road, Bengaluru 560088, GSTIN/UIN : 29AAATN2702J1Z6 PAN/IT No : State Name : Karnataka, Code : 29 Place of Supply : Karnataka		Invoice No. 4101 Delivery Note 001 Supplier's Ref. Buyer's Order No. Despatch Document No. Deepatched through Terms of Delivery	Dated 13-Apr-2026 Mode/Terms of Payment Other Reference(s) Dated Delivery Note Date 11-Apr-2026 Destination Destination					
Sl #	Description of Goods	HSN/SAC	GST Rate	Quantity	Rate	per	Disc %	Amount
1	Swingbin 14x28		18 %	4.00 nos	2,200.00	nos	10.29 %	7,458.00
								SGST
								671.22
								CGST
								671.22
								Round Off
								(-)0.44
	Total			4.00 nos				₹ 8,800.00
Amount Chargeable (in words):								E. & O.E
INR Eight Thousand Eight Hundred Only								
HSN/SAC		Taxable Value	Central Tax Rate	Central Tax Amount	State Tax Rate	State Tax Amount	Total Tax Amount	
		7,458.00	9%	671.22	9%	671.22	1,342.44	
Total		7,458.00		671.22		671.22	1,342.44	
Tax Amount (in words): INR One Thousand Three Hundred Forty Two and Forty Four paise Only								
Company's PAN : AEIPR4834B		Declaration: We declare that this invoice shows the actual price of the goods described and that all particulars are true and correct.						
Customer's Seal and Signature		Company's Bank Details Bank Name : State Bank Of India A/c No. : 64004329478 Branch & FS Code : COTTONPET MAIN ROAD & SBIN0040019						
		for Krupa Marketing						
		Prepared by		Verified by		Authorized Signatory		

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Figure 5-6: Sample Purchase bills for dust bins for 2024-25

5.2.4. Sewage Treatment Plant

The procedure for removing contaminants from the wastewater basically from the household sewage is called sewage treatment. It has to undergo the chemical, physical and biological procedure to remove these contaminants and give out an environmentally safe treated effluent. A semi-solid slurry called the sewage sludge is the by-product of the sewage treatment. This sludge is further processed before it is suitable for land application.

The institution has installed STP. The STP is shown in figure 5-5.



Figure 5-7: STP Area

The estimated cost savings for two years (23-24 & 24-25) benefits for installing STP plant is given in table 5.2.

S. No.	Description	Unit	Savings for 23-24	Savings for 24-25	Total Savings
1	STP capacity	kLPD	120	120	120
2	Quantity of final treated water from STP	kLPD	90	90	90
3	Quantity of water reused @ 50% utilization factor	kLPD	67.5	67.5	67.5
4	No. of working days per year	days	250	250	250
5	Annual Quantity of water reused (saved)	kLPD	16875	16875	33750
6	Average water cost	Rs/L	0.094	0.094	0.094
7	Annual cost savings achieved	Rs. lakh/year	15.9	15.9	31.8
8	Investment Cost	Rs. Lakh	75	75	75

Table 5-2: Annual cost savings by installation of STP plant

Note: The estimated cost of savings of installing STP plant for 24-25 is assumed to be same as previous year 23-24.

5.2.5. MoU for E - Waste Management

The Institution has undertaken a number of E-waste Management initiatives with the objective of creating an eco-friendly environment in the campus. E-waste such as computers and its peripherals are upgraded regularly to continue usage and to avoid its wastage.

E-wastes such as electronic components (plastic/metallic) are handed over to agencies which help recycle these materials. E-Waste disposal process through solution providers like “” has been initiated. The Certificate of E-waste disposal is shown in figure 5.6.



Figure 5-8: Certificate for E-waste disposal

6. GREEN CAMPUS MANAGEMENT AUDIT

6.1. Facility Description

The institute is a green campus, lavish, serene atmosphere with variety of plants and trees. The students and faculty are encouraged to adopt cleanliness, making the campus garbage and plastic free zone. Tree plantation programs help in encouraging eco-friendly environment, which provides pure oxygen within the institute.

The maintenance team takes care of the up-keeping of the environment and ensures to keep the surroundings clean. They maintain all the plantations by employing the cleanliness and watering regularly.

There are more variety of trees and well-maintained landscaping of lawns. It was observed different types of herbs, shrubs, species of vegetables & fruits and also, some medicinal plantations in the garden area.

6.1.1. Landscaping with Trees and Plants

Landscaping of the college is worth seeing and reflects aesthetic sense. The institute has a canopy of trees and plants to make the environment pollution free to safeguard the health of all the inmates. The trees provide shade and beautiful ambience. Utmost care is taken to develop and maintain green landscaping by trained gardeners and supervisor. The construction and maintenance team constituted in the college looks after the development and maintenance of the greenery in the campus. Photos taken during the audit are shown in figures 6-1 to 6-3.



Figure 6-1: Trees in the college campus



Figure 6-2: Plants in the college campus



Figure 6-3: Lawn area

6.1.2. List of trees and plants

The list of trees and plants in the college is given in figure 6.4.

GLOBAL ACADEMY OF TECHNOLOGY						
PLANTS AND TREES LIST						
Sl. No.	PLANTS NAME	Nos.		Sl. No.	TREES NAME	Nos.
1	TABLE PALMS	21		1	SANDALS TREES	137
2	ALMOND	24		2	PONGAM TREE	268
3	SCHEFFLERA	61		3	BADAM TREE	27
4	FICUS	258		4	NEEM TREE	21
5	FICUS PANDA	54		5	ROYAL PALM	106
6	BOUGAINVILLEA	214		6	PEEPAL TREE	4
7	CYCUS	32		7	JACKFRUIT TREE	18
8	GOLDEN CYPRESS	8		8	BELA TREE	5
9	ARECA PALM	53		9	ANJEER TREE	8
10	CHLOROPHYTUM	71		10	BAMBOO	23
11	CROTON "VARIEGATED	126		11	JAMUN TREE	15
12	DIEFFENBACHIA	25		12	AMLA TREE	6
13	DRACAENA FRAGRANS	30		13	CHAMPA TREE	9
14	SPATHIPHYLLUM	38		14	COCONUT TREE	8
15	ALPINYA	170		15	SILVER OAK	34
16	HIBISCUS	16		16	ASHOK TREE	34
17	TABERNAEMONTANA	16		17	CHERRY TREE	17
18	JASMINE 8	8		18	TEAK TREE	7
19	EFOURBEYA	158			TOTAL	747
20	DRESENA	153				
21	CROTAN	158			FRUIT TREES	Nos.
22	DRESENA SONG OF INDIA	71		1	MANGO TREE	9
23	MOSANDA	42		2	GUAVA TREE	5
24	BILVA TREE	4		3	WATER APPLE	2
25	GOLDEN MALOLUKA	78		4	MOSAMBI TREE	1
26	LILY	8		5	LIME TREE	1
27	REBBN GRASS	49		6	SAPOTA TREE	1
28	BRAHMA KAMAL	4		7	ANJEER TREE	1
29	HAGLONEMA	150		8	PANEER TREE	2
30	ASHOK FLOWER	79			TOTAL	22
31	INDOOR PLANTS	250				
	TOTAL	2429				

Figure 6-4: List of trees and plants in the college campus

6.2. Institutional Initiatives for Green Campus Management

The maintenance staff members do periodic checks and maintain records for the same. Many initiatives are taken by the management to inculcate the eco-friendly culture among the student community. The green campus provides the facilities such as rain water harvesting, well grown plantations and lawn all around the campus.

- Plastic free campus
- Green landscaping with trees, plants like vegetable, fruits and medicinal plants; lawns
- Paperless office: All communication regarding academics and administration are sent as e-mails and messages to faculty members and students that contributes paperless communication

6.2.1. Regular maintenance of greeneries

The greeneries within the campus are maintained properly with dedicated garden maintenance staff. They proper maintenance like weeding, lawn care and watering etc., The sample image of garden maintenance tools is shown in figure 6-5.

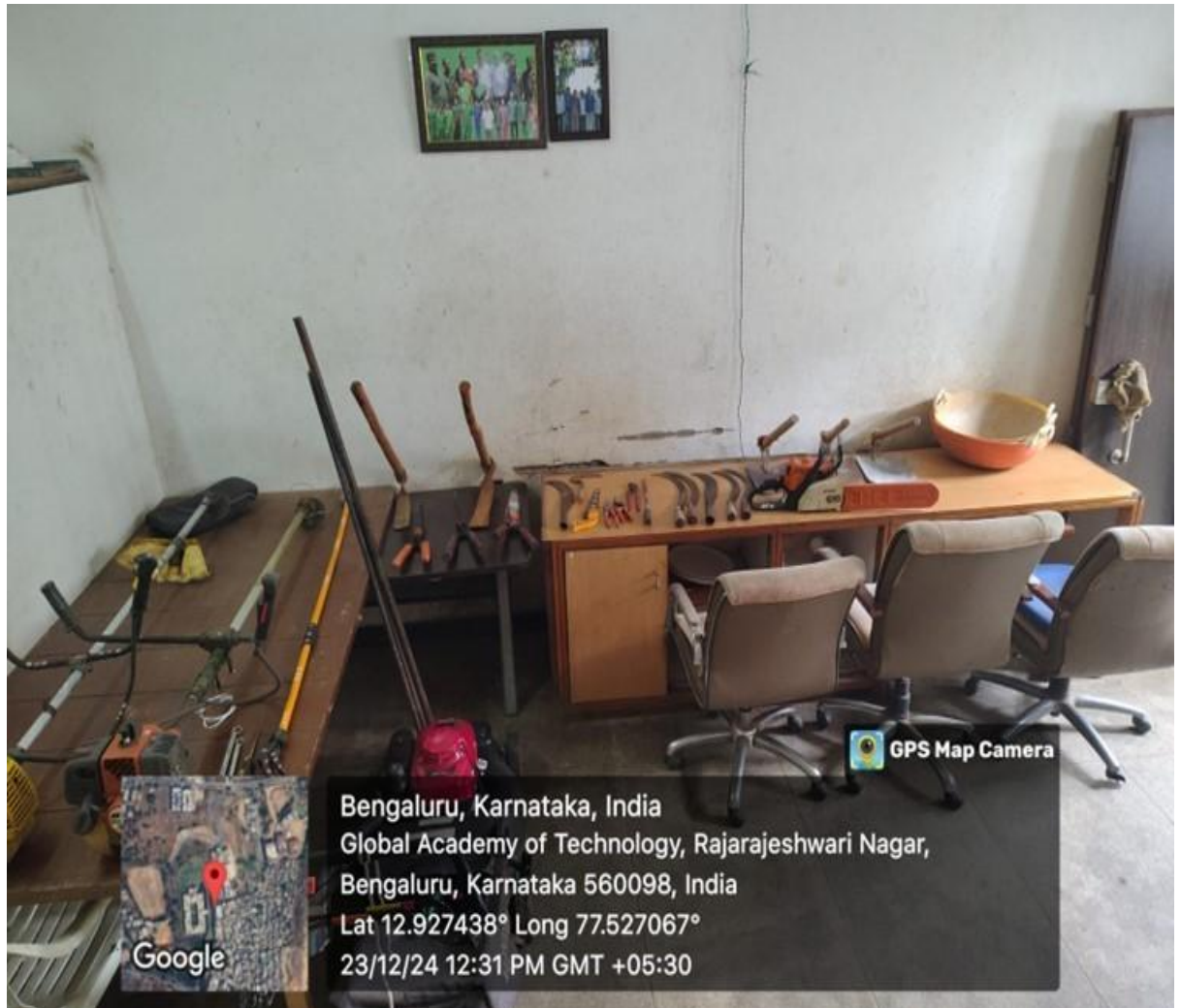


Figure 6-5: Garden Maintenance Tools

7. ENVIRONMENT AUDIT (CARBON FOOTPRINT ANALYSIS)

7.1. Facility Description

The carbon footprint is "the total amount of greenhouse gas (GHG) emissions caused by an organization, event or product". Global warming and climate change are the foremost environmental challenges facing the world today. It is our responsibility to minimize the consumption of energy and hence reduce the emissions of greenhouse gases.

7.2. Institutional Initiatives for Environment Conservation

7.2.1. Awareness campaign on environment conservation

Management has taken steps to create awareness among students and staff regarding:

- Creating awareness campaigns on Environment Conservation
- Awareness campaigns on avoiding use of plastics

Environment awareness drawing competition is been conducted for the students.

7.2.2. Encouraging for usage of electric vehicles

The institution management is recommending and encouraging the staff and students to use the public transport and electric vehicles, to reduce the carbon foot prints.

Some of the students coming to college are Electric bikes. During audit pictures of electric bikes are taken and the same is given in figure 7-1.



Figure 7-1: Students using Electric Bikes

7.2.3. Rain Water Harvesting

Rainwater harvesting is the simple process or technology used to conserve rainwater by collecting, conveying, purifying and storing of rainwater for later use. Rain water harvesting pits for ground water recharge have been installed in many locations inside the college.

The benefits of rainwater harvesting system are listed below.

- Helps in reducing the water bill.
- Decreases the demand for water.
- Reduces the need of bore well water
- Promotes both water and energy conservation
- Improves the quality and quantity of groundwater
- It is an excellent source of water for landscape irrigation

Picture of the rain water harvesting pits is shown in figure 7-2.



Figure 7-2: Rain Water Harvesting Pits

7.2.4. Sewage Treatment Plant

The procedure for removing contaminants from the wastewater basically from the household sewage is called sewage treatment. It has to undergo the chemical, physical and biological procedure to remove these contaminants and give out an environmentally safe treated effluent. A semi-solid slurry called the sewage sludge is the by-product of the sewage treatment. This sludge is further processed before it is suitable for land application.

The institution has installed STP. The STP is shown in figure 7-3.



Figure 7-3: STP Area

The estimated cost savings for two years (23-24 & 24-25) benefits for installing STP plant is given in table 7.1.

S. No.	Description	Unit	Savings for 23-24	Savings for 24-25	Total Savings
1	STP capacity	kLPD	120	120	120
2	Quantity of final treated water from STP	kLPD	90	90	90
3	Quantity of water reused @ 50% utilization factor	kLPD	67.5	67.5	67.5
4	No. of working days per year	days	250	250	250
5	Annual Quantity of water reused (saved)	kLPD	16875	16875	33750
6	Average water cost	Rs/L	0.094	0.094	0.094
7	Annual cost savings achieved	Rs. lakh/year	15.9	15.9	31.8
8	Investment Cost	Rs. Lakh	75	75	75

Table 7-1: Annual cost savings by installation of STP plant

Note: The estimated cost of savings of installing STP plant for 24-25 is assumed to be same as previous year 23-24.

7.2.5. Ground Water Recharge

Rainwater harvesting is the simple process or technology used to conserve rainwater by collecting, conveying, purifying, storing and utilizing. The process of recharging the ground water by utilizing rain water harvested, is practiced by ground water recharge pits. Borewell type rain water recharge pits have been installed. The picture of borewell type ground water recharge pit is shown in figure 7-4.

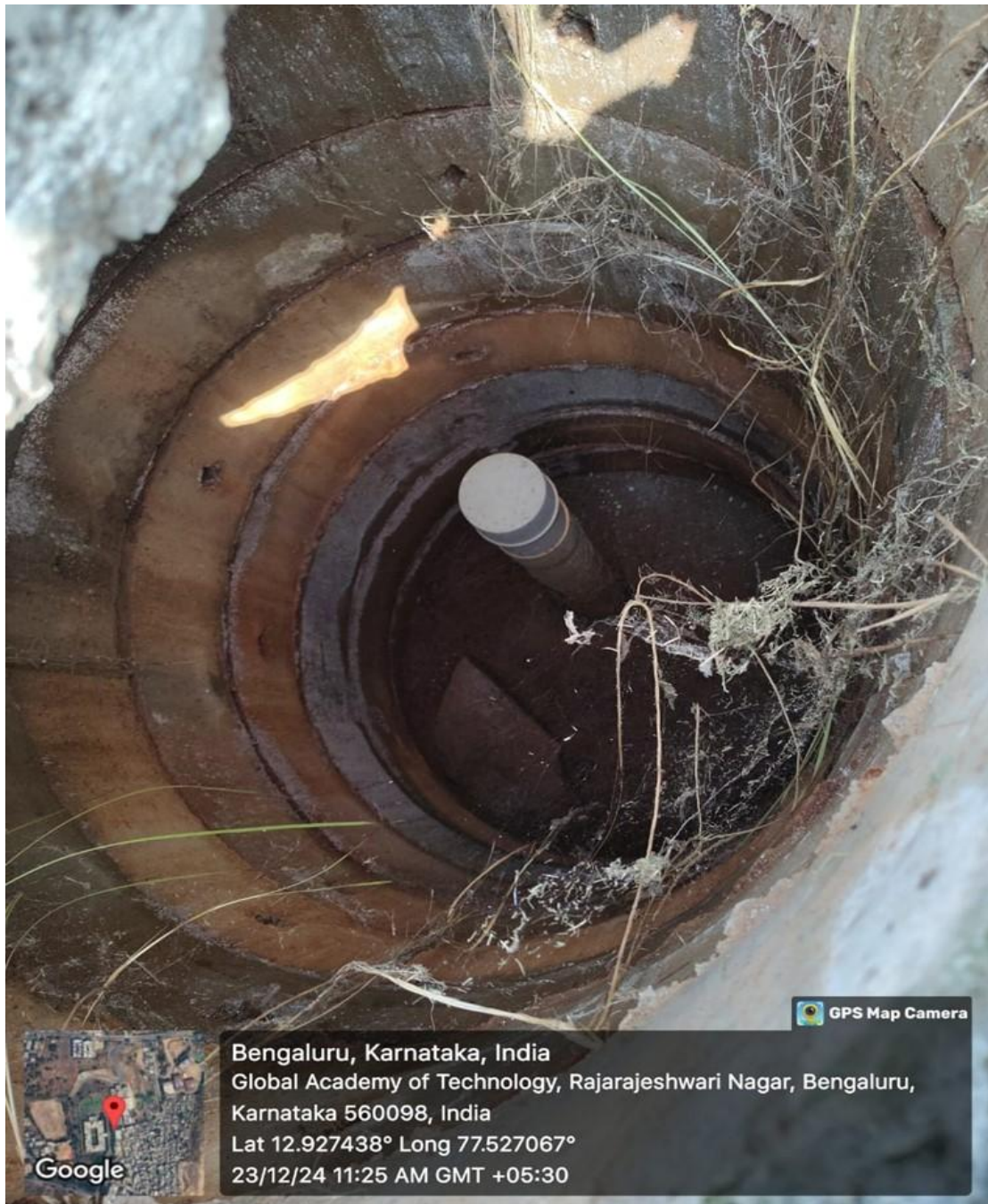


Figure 7-4: Borewell type ground water recharge pit

7.2.6. Day-light Integration

During the audit phase classrooms, Staff-rooms, computer lab, UPS & batteries room and library areas were surveyed for illumination levels and fresh air-circulation. It was observed most of the rooms are well ventilated and day-light integrated; sample photos are shown in figure 7-5.

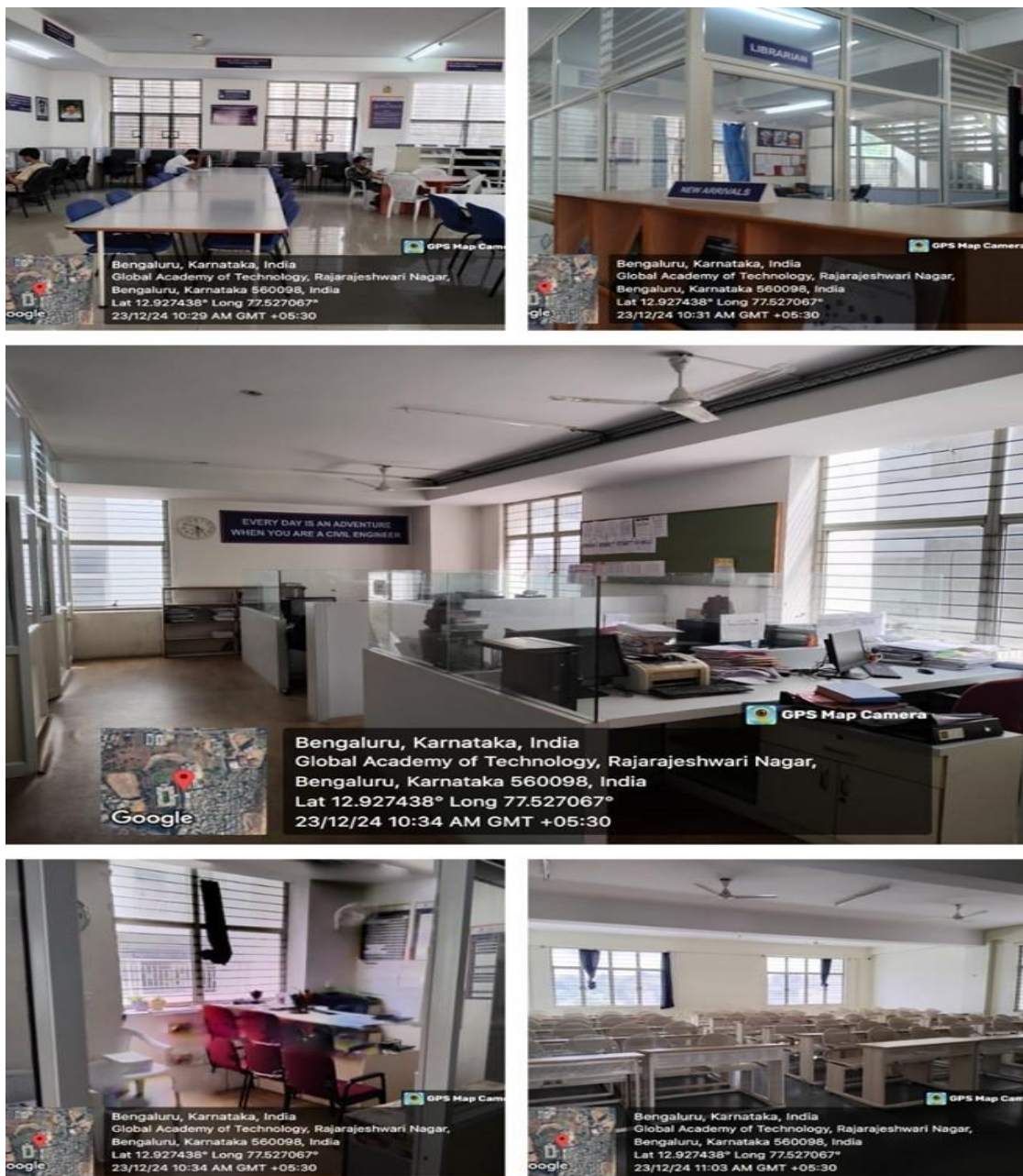


Figure 7-5: Well-ventilated and day-light integrated class room and Library

7.2.7. Installation of LED lights

In the campus, LED fixtures are used to conserve energy. LED fixtures are used in the class rooms, staff-rooms, seminar hall corridors, hostel, dining area, etc. Sample photo of LED lamp used in the some of the locations of the college area are shown in figure 5-8 and sample LED purchase bill is shown in figure 7-6.

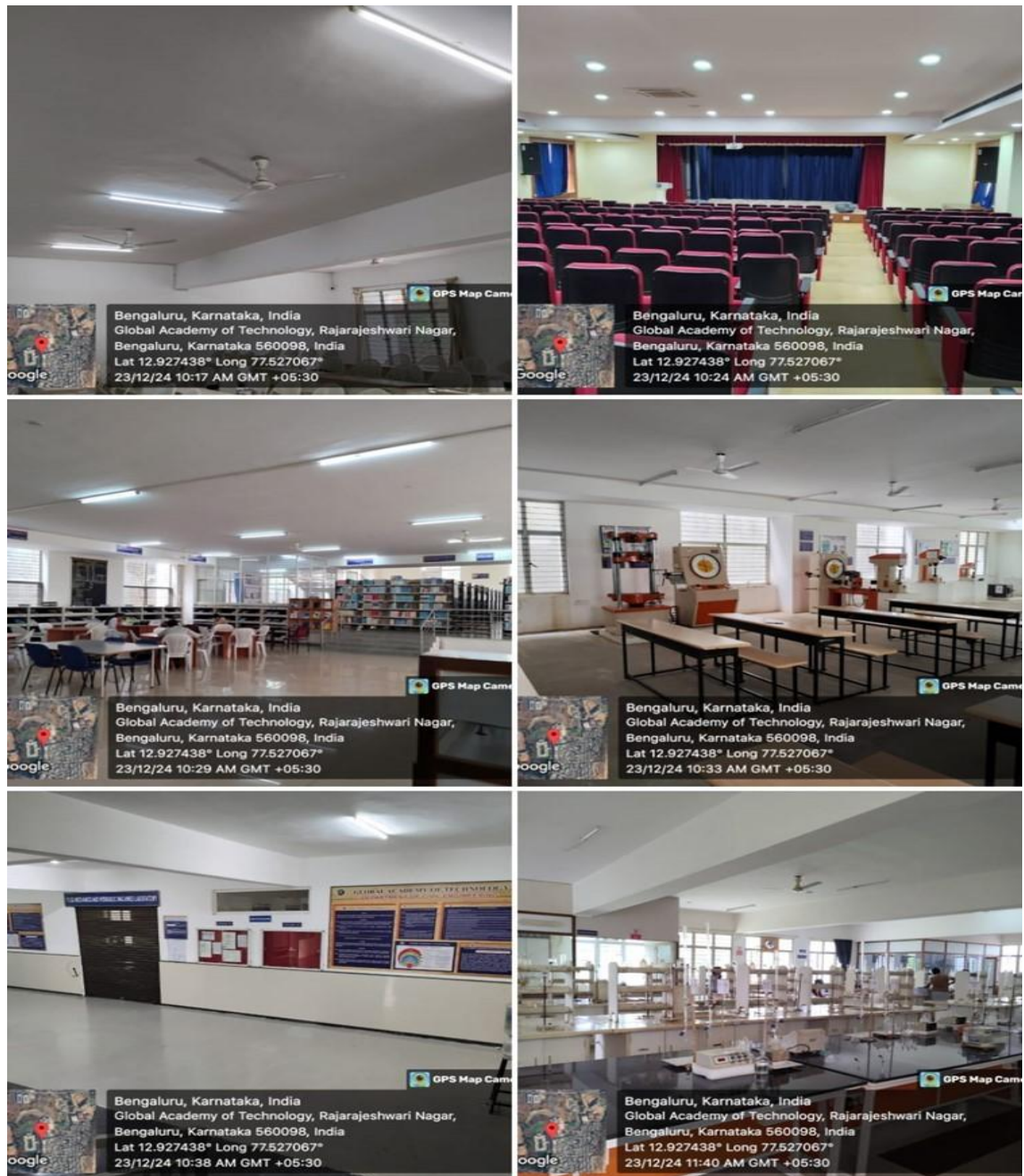


Figure 7-6: LED lights installed in Campus

7.2.8. Installation of SRTPV system

SRTPV (Solar Roof Top Photo Voltaic) system was installed at the terrace.

The capacity of SRTPV installed is of **150 kWp** rated. The SRTPV is on-grid system type. During the audit, photo of SRTPV systems is collected and is shown in figure 7-7.



Figure 7-7: SRTPV installed at college

Energy generation and cost savings of 150 kWp is estimated and the same is given in the table 7-2.

S. No.	Description	Unit	Savings for 23-24	Savings for 24-25	Total Savings
1	Rated Capacity of SRTPV system	kWp	150	150	150
2	Average units generated per day	kWh/day/kWp	3.5	3.5	3.5
3	No. of working hours per annum	days	350	350	350
4	Annual energy generation from SRTPV	kWh/ annum	183750	183750	367500
5	Average energy cost	Rs./kWh	9.5	9.5	9.5
6	Annual cost savings due to installation of SRTPV	Rs. Lakh / annum	17.5	17.5	35
7	CO2 mitigations per year	Tons/year	145.2	145.2	290.4

Table 7-2: Cost savings from SRTPV system

Note: The Energy Generated and Grid Electricity cost for 24-25 is assumed to be same as previous year 23-24.

7.2.9. Installation of Solar Water Heater

Solar water heaters are installed in boy's hostel for generating hot water. It is integrated with heat pump system. Sample photo of solar water heater used in the campus are shown in figure 7-8.

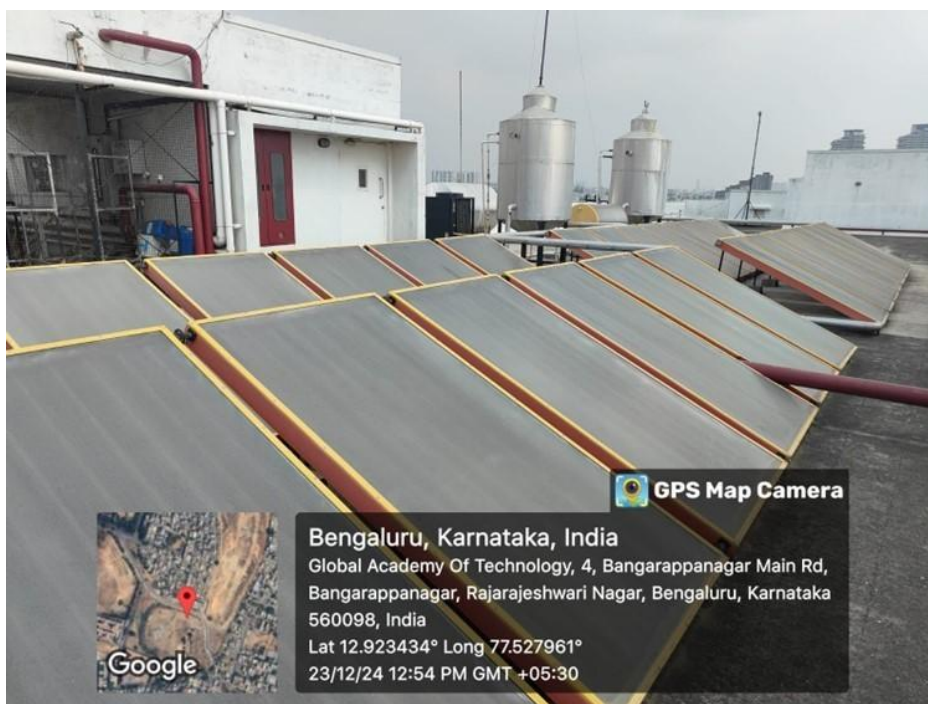


Figure 7-8: Use of Solar Water Heater

The cost savings by installation of solar water heater are given in table 7-3.

S. No.	Description	Unit	Savings for 23-24	Savings for 24-25	Total Savings
1	Solar water heater installed	L	20000	20000	20000
2	Total amount of heat produced	kCal/hr	600000	600000	600000
3	Electricity equivalent	kWh	697.7	697.7	1395.4
4	No. of working days per year	days	250	250	500
5	Annual electricity savings	kWh	174418.6	174418.6	348837.2
6	Average electricity cost	Rs./kWh	9.5	9.5	9.5
7	Annual cost savings achieved per year	Rs. lakh/year	16.6	16.6	33.2
8	CO2 mitigations per year	Tons/year	137.8	137.8	275.6

Table 7-3: Annual cost savings by installation of Solar Water Heater

Note: The cost savings by installation of solar water heater for 24-25 is assumed to be same as previous year 23-24.

7.2.10. Installation of Heat Pump

Heat pump technology has been used for the hot water availability in Boy's hostel and is integrated with the solar water heater. The integrated hot water system is shown in figure 7-9.

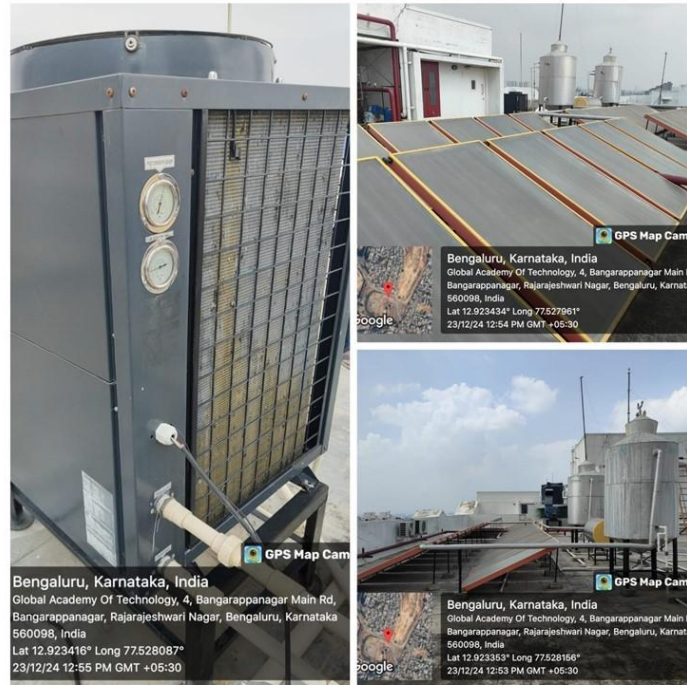


Figure 7-9: Integrated recirculation type -Hot water system

Annual energy savings by heat pump technology is as shown in table7-4.

S. No.	Description	Unit	Savings for 23-24	Savings for 24-25	Total Savings
1	Heat Pump Capacity	L	10000	10000	10000
2	Total amount of heat produced	kCal/hr	300000	300000	300000
3	Electricity equivalent	kW	349	349	349
4	Input Power required for heat pump	kW	116	116	116
5	Difference in electrical power	kW	233	233	233
6	Energy savings per heat pump per day	kWh	233	233	233
7	Total number of heat pumps installed	no.	2	2	2
8	Total energy savings from 2 numbers of heat pumps	kWh	465	465	465
9	No. of working days per year	days	300	300	600
10	Annual electricity savings	kWh	139535	139535	279070
11	Average electricity cost	Rs./kWh	10	10	10
12	Annual cost savings achieved per year	Rs. lakh/year	13	13	26
13	CO2 mitigations per year	Tons/year	110	110	220

Table 7-4: Cost savings from SRTPV system

Note: The Annual energy savings by heat pump for 24-25 is assumed to be same as previous year 23-24.

7.2.11. Regular cleaning of campus

Regular cleaning of campus is done to maintain overall hygiene. Cleaning activities are carried out using water and floor cleaning chemicals in bucket and mop. Mopping is done every day. The sample image of cleaning activity done in the college campus is shown in figure 7-10.

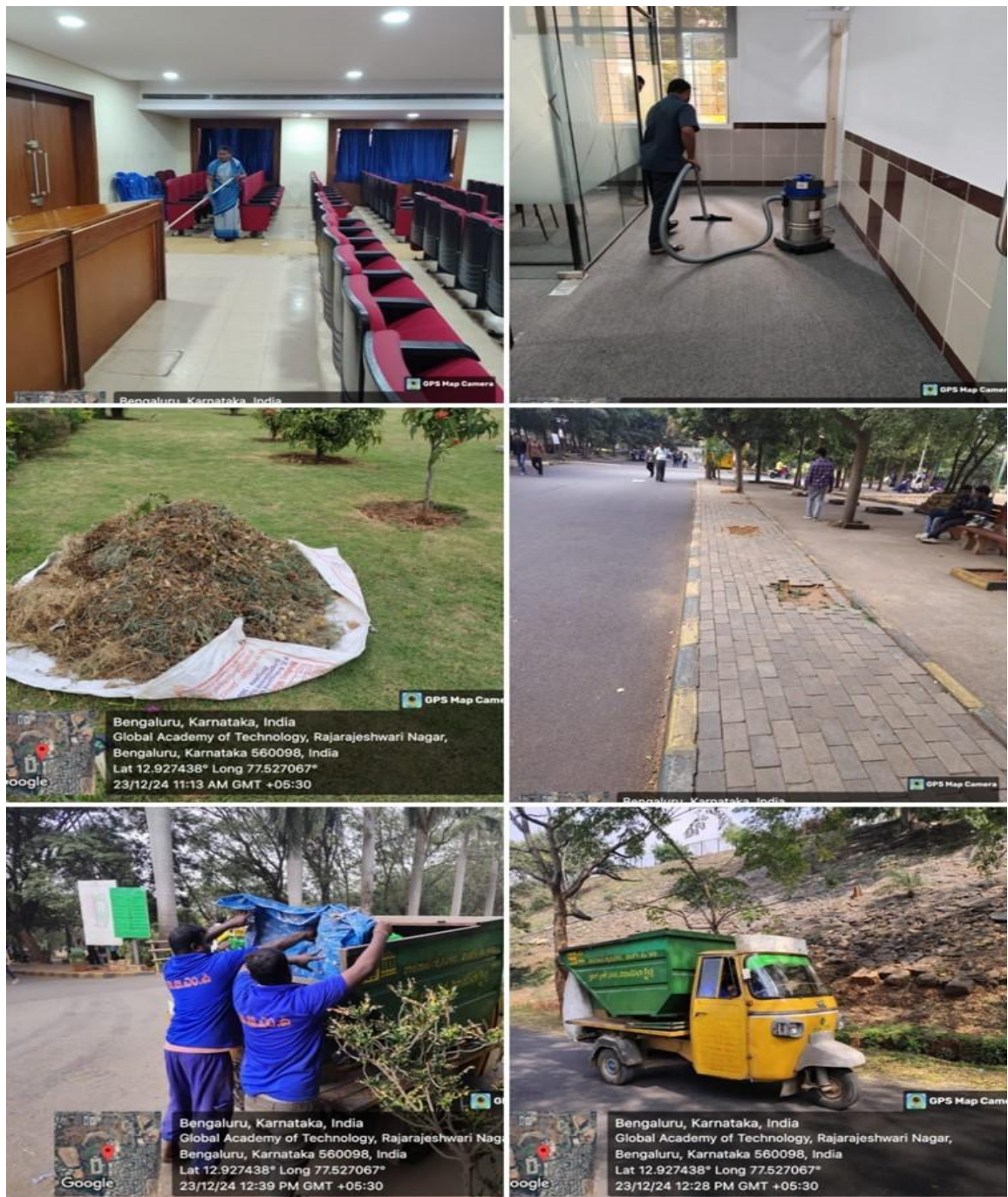


Figure 7-10: Cleaning in the college campus

8. ANNEXURES

8.1. Data Collection Questionnaire

A questionnaire is a checklist used as the primary tool for the collection of data / information in a systematic manner that enables to perform the audit.

8.1.1. General information of the college:

General information of the college needs to be collected to get an overview of the campus for the walk-through purpose. It includes a set of questionnaires as given below.

1. Previous NAAC Grading's:

Previous NAAC Grading's of the college was collected from table 8-1.

S. No.	Phase	Grade	CGPA/Percentage	Year of Acc.	Acc. Period
1	I				
2	II				
3	III				

Table 8-1: NAAC grading's Table

2. Internal Quality Audit Team : 2020 – 2021

Table 8-2 depicts the format for the collection of Internal Quality Audit team.

S. No.	Name	Designation	Role
1			
2			
3			

Table 8-2: Internal Quality Audit team

3. General Information of the college

General information of the college includes an address of college and head office, contact person details, year of establishment etc., as given in table 8-3.

S. No.	Description	Details
1.	Name of the College and address:	

S. No.	Description	Details
1.a	Head office address:	
2.	Telephone/Fax No	
3.	Co-ordinating officer:	Name:
		Mob:
		Email:
4.	Year of Establishment:	
5.	Hostel (Available/Not Available)	
6.	No. of Working days/year	
7.	Brief description of Campus	

Table 8-3: General information of the college

4. College Infrastructure

Infrastructure details of the college were gathered from table 8-4.

S. No.	Description	Details
1	Block Name	Class rooms
		Labs
		Staff rooms
		Wash rooms
2		
3		

Table 8-4: Detail Infrastructure of the college

5. Details of Student clubs
6. Details of cells that support students
7. Tentative Schedule of a working day:

a. No. of working days per year:

b. List of holidays:

8. Total area of the campus

9. Details of List of Departments and Courses (Faculty wise)

The total number of department, laboratories, conference hall, Libraries, Auditorium, and Cafeteria are obtained from table 8-5.

S. No.	Description	Details
1	Department	
2	Laboratories	
3	Conference Hall	
4	Libraries	
5	Auditorium	
6	Cafeteria	

Table 8-5: Details of the departments

10. Number of staff

Teaching, non-teaching, supporting staff with a male and female breakup is obtained from table 8-6

S. No.	Teaching Staff		Non-teaching Staff		Support Staff (Security, House Keeping)	
	Male	Female	Male	Female	Male	Female

Table 8-6: Details of the Staff

11. Number of Students

Number of students is collected from table 8-7.

S. No.	Boys	Girls
1		

Table 8-7: Details of the Students

12. Additional infrastructure details have been collected from table 8-8.

S. No.	Description	Details	
1.	Number of blocks available for boys hostel	Nos.	
2.	Number of rooms available for boys hostel	Nos.	
3.	Number of blocks available for girls hostel	Nos.	
4.	Number of rooms available for girls hostel	Nos.	
5.	Whether Laundry is available in the hostel	Yes / No	
6.	If Yes List the Electrical Equipment in Laundry Section of the hostel (like Washing machine, Dry Cleaning Machine, Iron)		
7.	Whether gym/ indoor sports hall is available in hostel	Yes / No	
8.	Whether Solar PV based Power Generation is available in campus (academic or hostel block)	Yes / No	
9.	Whether lifts available in academic block	Yes / No	
10.	Whether Kitchen is available in the academic block	Yes / No	
11.	Whether any food counter (outside caterers) available in academic block	Yes / No	
12.	Whether any commercial shops available in academic block	Yes / No	
13.	Any more information or additional details of academic block you would like to share – kindly elaborate here		

Table 8-8: Details of the departments

8.1.2. Water Audit details:

1. General information

General information required for water management analysis is collected from table 8-9.

S. No.	Description	Details
1	Source of water	
2	Types of water	

S. No.	Description	Details
3	No of Wells	
4	No of motors used	
5	No of bore wells	
6	Rating of the motors in HP	
7	Depth of each bore-well	
8	Water level of bore well	
9	Number of water tanks (overhead & underground tanks)	
10	Capacity of overhead tank	
11	Capacity of underground tank	
12	Quantity of water pumped every day	
13	Any water wastage of water /why?	
14	Water usage for gardening	
15	Waste water sources	
16	Use of waste water	
17	Faith of waste water from labs	
18	Whether waste water from labs mixed with ground water?	
19	Any treatment method available for lab water?	
20	Whether any green chemistry method practiced in labs?	
21	Total number of water coolers	
22	Whether Rain water harvesting system available?	
23	Whether Sewage Treatment Plant (STP) is available?	
24	List of equipment installed in STP (If S.No.23 is Yes)	
25	Whether Solar Hot Water System is available in the campus	
26	Number of units and amount of water harvested	
27	Any leaky taps in the campus	
28	Amount of water lost per day	
29	Any water management plan used?	
30	Any water-saving techniques followed?	
31	Are there any signs reminding peoples to turn off the water?	
32	No. of water flow meters available	

S. No.	Description	Details
33	Method of water consumption monitoring	
34	Breakup of daily water consumption	
35	Attach Month wise water bill for last 2 years	
36	Please attach recent water quality test reports for Bore well water, Drinking Water and STP processed water.	
37	What are the sources of hot water	
38	What are the usage areas of hot water	

Table 8-9: Water management details

2. STP information

STP details are collected from table 8-10

S. No.	Description	Details
1.	Number of STP plants installed	
2.	Capacity of STP	
3.	Technology of STP	
4.	Year of Installation	
5.	Schematic / Layout of STP	
6.	Water flow meters installed	
7.	Quantity of Sludge	
8.	Disposal of Sludge	

Table 8-10: Details of STP

3. RO Plant information

RO Plant details are obtained from table 8-11.

S. No.	Location	Quantity	Capacity
1.			
2.			
3.			

Table 8-11: Details of RO Plant

8.1.3. Energy consumption details:

1. Energy consumption details:

The energy consumption details required for the audit is collected, the brief format of the same is given in table 8-12.

S. No.	Type	Units	Value	Cost in Rs.
1	Electricity	kWh	2019	
			2020	
2	LPG	Cylinders		
3	Diesel	Litres (Month wise consumption for the last two years)		
4	Others resources (Please specify)			
5	Total connected load	kW		
6	Contract demand	kVA		
7	Maximum demand recorded	kVA		
8	Average power factor			
9	Energy charges	Rs./kWh		
10	Demand charges	Rs./kVA		
* Attach Electricity Bill Copy of last 2 years				

Table 8-12: Details of Energy consumption

2. Solar Energy details:

The solar energy details required are collected from table 8-13.

S. No.	Buildin g No./ Name	Solar water Heater			Solar PV System		
		Capacit y	Workin g / Not working	Year of Installatio n	Capacit y	Workin g / Not working	Year of Installatio n

Table 8-13: Details of Solar Energy

3. Solar Street lights details:

a. Quantity -

- b. Capacity -
- c. Year of Installation –

4. Electrical Equipment details:

Electrical Equipment like transformers DGs UPS Capacitor Bank, AC, Computers, water coolers, fans, exhaust fans are obtained from the table 8-14.

S. No.	Description	Details	
1.	Number of Transformers Installed	Nos.	
2.	Number of Electrical Panels / Electrical Panel Rooms	Nos.	
3.	Whether Diesel Generator Set Backup Power is Available	Yes / No	
4..	How many number of DG Sets available in the campus (If S.No.3 is Yes)	Nos.	
5.	Whether UPS is available for labs, computers and/or any equipment	Yes / No	
6.	Number of UPS installed with location and capacity (If S.No.5 is Yes)	Nos.	
7.	Whether Capacitor Banks is installed in the electrical panel rooms	Yes / No	
8..	Whether Air Conditioning Units have been installed in the campus	Yes / No	
9.	Type of AC units (split, cassette or packaged) available, capacity and installed location (If S.No.8 is Yes)	Nos.	
10.	Total number of computers available in the campus	Nos.	
11.	Type of computer monitors available (CRT, LCD, LED)	Nos.	
12.	Whether water coolers are installed in the academic blocks	Yes/No	
13.	Type of lamps (Fluorescent Tube Light, CFL, LED, Incandescent, Sodium / Mercury lamps, etc.) installed in the campus	Nos.	
14.	Type of fans (ceiling, wall mount, standing, exhaust, etc.) installed in the campus	Nos.	
15.	Whether exhaust fans are installed in hostel / kitchen.(If Yes, share the quantity and installed location)	Yes /No	
16.	Any other electrical equipment's in college buildings.		

Table 8-14: Details of Electrical Equipment

5. List of energy saving initiatives implemented
6. List of energy saving initiatives in plan for future

8.1.4. Waste management details:

Waste management includes the activities and actions required to manage waste from its inception to its final disposal. The various data/ information required for the assessment of waste management is as collected from the following set of questionnaires.

1. Basic information

Basic information for waste management is collected from table 8-15.

S. No.	Description	Yes/ No
1	Whether wet and dry garbage segregation is done inside the campus?	
2	Whether garbage is given to external agencies / municipal agencies?	

Table 8-15: Basic details of waste management

2. Types of Waste generated

Types of waste generated in the college are obtained from table 8-16.

S. No.	Description	Yes / No	Remarks
1	E-Waste (Computers, electrical and electronic parts)		
2	Hazardous / Chemical Waste		
3	Solid Waste (Damaged furniture, paper waste, paper plates)		
4	Dry Leaves		
5	Food Waste		
6	Waste Water (Washing, urinals, bathrooms)		
7	Glass Waste (Broken glass wares from the labs)		
8	Unused Materials		
9	Plastic Waste (Pen, Refill, Plastic water bottles and other plastic containers, wrappers etc.)		

Table 8-16: Types of waste generated

3. Segregation of waste

Segregation of waste information at different locations with quantity is gathered from table 8-17.

S. No.	Location	Bio-degradable	Non-Biodegradable	E-waste	Quantity, kgs/month
1	Office				
2	Labs				
3	Cafeteria / Kitchen				
4	College				

Table 8-17: Segregation of waste

4. Waste generation management

Waste generation management of the college was collected from table 8-18

S. No.	Description	Yes / No	Remarks
1	Composting / Vermicomposting		
2	Recycling		
3	Reusing		
4	Other ways		

Table 8-18: Waste Disposal methods

8.1.5. Green campus management details:

1. Total number of plants and trees

The total number of plantations, garden area, and many more are collected as per the set of questionnaires given in table 8-19

S. No	Description	Details
1	Total number of plant species identified	
2	Total number of plants on the campus	
3	Total number of Trees on the campus	
4	Garden area inside the college –	
5	Total number of medicinal plants /trees on the campus	

6	Total number of vegetables and fruits plantation in the campus	
7	Whether display boards are given to plants and trees for identification	
8	Does Institute celebrate World environment day?	
9	Does Institute celebrate World water day?	
10	Does Institute celebrate World ozone day?	
11	Does Institute celebrate World Earth day?	
12	Total number of aquatic water plants	

Table 8-19: List of plantation details

2. List of plants/ trees

List of plants/ trees with their scientific names obtained from table 8-20.

S. No.	Common/Local Name	Scientific name	No. of Trees/Plants

Table 8-20: List of plants/trees in campus

8.1.6. Carbon footprint management details:

The carbon emission from various activities such as transport, diesel generator usage, LPG consumption, and electricity consumption were collected, as per table 8-21.

S. No	Description	Details
1	Whether college provides transport facility for staff and students (Yes/No)	
2	Number (or Percentage) of staff using transport services provided by college	
3	Number (or Percentage) of students using transport services provided by college	
4	Number (or Percentage) of Staff using public transport	
5	Number (or Percentage) of Staff using Bike	
6	Number (or Percentage) of Staff using Car	
7	Number (or Percentage) of students using Public transport	
8	Number (or Percentage) of students using Car	
9	Number (or Percentage) of students using Bike	
10	Number (or Percentage) of students using Bicycles	
11	Average consumption of diesel per month	
12	Average electricity consumption per month	
13	Average LPG consumption per month	

Table 8-21: Details of Carbon footprint management

8.1.7. Photos required for Audit:

1. General Photos

In various sections, different types of photos are required to validate the existence of things, and hence they are collected from table 8-22.

S. No	Description	Details
1	Photos of student's NSS activities	
2	Photos of Safety policy	
3	Photos of the training program on the use of fire extinguishers	
4	Photos of environmental policies adopted by college	
5	Photos of MoUs for Waste management	

6	Photos of any other policies adopted by college		
7	Photos of water test report	Drinking Water	
		STP processed water	
		Bore-well water	
		Other water Sources (Like Tanker water and any other)	
8	Photos of use of Energy efficient devices like fan, bulbs etc.		
9	Photos of LCD/LED monitors used in Labs		
10	Photos of dry and wet waste collection bins		
11	Photos of celebrating World Environment Day		
12	Photos of celebrating World Water Day		
13	Photos of celebrating World Earth Day		
14	Photos of celebrating World Ozone Day		

Table 8-22: List of photos