

GREEN AUDIT REPORT



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Acknowledgement

Green Audit Assessment Team thanks the management **Sulochana Belhekar Samajik Va Bahu Uddeshiaya Shikshan Sanstha, Sant Dnyaneshwar Sant Dnyaneshwar B. Ed. College, Dist. Ahmednagar -414 609, Maharashtra, India** for assigning this important work of Green Audit we appreciate the cooperation to our Team for completion of study. Our special thanks are due to:

- Dr. Udmalle Rohidas Namdeo (Principal)
- Prof. Lokhande Samata Rishikant
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IQAC coordinator NAAC for motivating us for energy audit

- Team of colleagues and students as stated under Annexure-I

For giving us necessary inputs to carry out this very vital exercise of Green Audit.

We are also thankful to other staff members who were actively involved while collecting the data and conducting field measurements.

Profile of Audit Team Members:

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DISCLAIMER

Green Audit Team has prepared this report for Sant Dnyaneshwar Sant Dnyaneshwar B. Ed. College, Dist. Ahmednagar -414 609, Maharashtra, India. 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 calculations are arrived following best estimates 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.

Principal's Message

I myself Dr. Udmalle Rohidas Namdeo Tile hereby happy to say that being the Principal of Sant Dnyaneshwar B. Ed. College Bhanashiware, Tal: Newasa, Dist. Ahmednagar, Maharashtra (414 609), India. Within rural area, it is my responsibility to lookforward for providing higher education to the students especially from educational, socially and economically backward classes of this area and this college is constantly working in this direction with the enormous support from our respective management. The college is located purely in rural area and it has green campus with almost **2.0 acres** of land. This college has been working since the foundation to create opportunities for the students to face the challenges of this competitive world and for the institution has been providing advance equipment for teaching, learning resources and physical infrastructure like library with relevant books, ICT tools, and computer labs with Wi-Fi facility.

The college has a team of well qualified and competent members in its staff which is being considerably providing quality education.

We are pleased to undergo the Green Audit of our institution to provide better health and hygienically environment and to spread environment awareness all over the region.

SCOPE OF WORK

Topics to be covered as part of the assessment are

Solar Passive Architecture (Proposed) Biogas

- How the buildings are constructed to utilize the solar energy efficiently. This includes use of day light as lighting source and avoidance of GHG intensive technology example AC as source of cooling due to solar heat gains.

Implementation of measures to reduce wastage of energy (Proposed)

- This includes effective and objective evidences to create awareness towards wastage of electric energy. Hoardings, placards, messages, posters etc. planted at key locations in college, hostels and cafeterias. PCRA (Petroleum Conservation Research Association, Gov. of India) and BEE (Bureau of Energy Efficiency) posters are exhibited.
- It can also be extended to include papers presented by the students on avoidance of electricity at college or day to day life.
- Appointment of joint committees of teachers and students to save electricity
- Controlling of Power Factor by installation of APFC and getting rebate (up to 5% or MSEDCL norms) from MSEDCL for maintaining unity Power factor

Energy Efficient Procurement (Proposed)

- This includes evaluation of energy efficient procurement practices. This does not exactly mean that you need to buy the most efficient, but you need to buy the most efficient which is financially viable. Example AC with efficiency star ratings, Transformer etc.
- Replacement of lighting sources to CFL or LED
- Centralized controls of lighting, auditorium etc. to avoid any mis-use of electricity
- Procurement of LED monitors to phase-out CRT Monitors
- Shift to paperless regime wherever not required, example attendance muster replaced by biometrics, DG logbook replaced by computerized logbook, daily reports converted from paper to paperless, HOD meetings converted to paperless formats, and all such examples
- Installation of Biogas/Solar panels, Power Purchase Agreements with Solar Power Plant owners to buy environmentally friendly energy Source etc.
- Documentary evidences as feasible to calculate the above impacts and finally into the value of value of avoidance of CO₂ emitted to atmosphere.

Rain Water Harvesting

This includes Calculation of Catchment Area (Terrace and ground) and evaluating rough amount of water that is recharged into the water recharge pits.

Hazardous Waste Management and e-Waste Management

There are various wastes that are generated within the organization. The report will give the list of the procedures for waste handling.

Duration of the Green Audit

The Green audit field observations data collection was carried on **31th May 2023** followed by data submission from college for the session 2022-23, 2023-24. The submitted data was monitored by the college throughout the year and assessed by Assessment Team during the visit.

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Chapter 01 - Introduction of the Institute

INTRODUCTION



Sant Dnyaneshwar Sant Dnyaneshwar B. Ed. College, has been founded by 2008 at Ahmednagar (Maharashtra). The Academy is a private granted organization and is working on the Government financing. Initially institute has started with traditional course of stream viz Masters of Business Administration Since establishment the institute has attracted the students from all over Maharashtra. It is affiliated with Savitribai Phule Pune University, Pune, and recognized by the government of Maharashtra.

The College offers a moderate pollution environment as it's near the little maddening crowd of the city life. The vision and mission of the college clearly reflects the commitment of the college towards promoting quality and excellence in education to cater to the needs of society & also the main aim to carries the Poor students in the flow of basic education that was clear.

The College always proves excellence through comparable academic results. The College believes in faculty development so that, they can serve better to the students. In Academics Infrastructure is also playing vital role to create the healthy environment for the education.

The institution, always believe the external audit to ensuring its perfection and quality in the field of excellence in academic and its qualitative process. With this objective Institute has decided to make its quality evaluation by National Assessment and Accreditation Council (NAAC), which will help us to institutional developments and contribution to society's development.

Objective of Green Audit

The Green Audit Team focused on Material Issues pertaining to college which have the highest influence on the Green Attributes of the College. To evaluate steps taken by college management towards green campus below material issues are discussed chapter wise:

1. Organization Level Efforts
2. Creation of Awareness
3. Lighting
4. Cooling and Ventilation
5. Operation of Electronic Equipment
6. Water Management
7. Water Quality
8. Renewable Energy
9. Transportation
10. Purchasing Practices
11. Carbon Footprint
12. Waste Management
13. Plantation Details

Checklist approach is adopted for transparent evaluation of the topics and increase readability for independent reader.

1. Organizational Level Efforts

Is the college having campus green team?	Yes, the Nature Conservation Club is already in place. This club is also formally coined as “Green Campus Committee”
If yes, who are the stakeholders?	Yes, it included stakeholders. The stakeholders include <ul style="list-style-type: none"> • Top Management • Administration • Teaching Faculty • Non-Teaching Faculty • Students • Neighbouring Members However, Green Campus Team is shared with the Audit Team. Refer Annexure III.
Does it meet regularly?	The Team meets once in a semester. This was confirmed during site visit interviews and the review of the minutes of meeting.
Can the Green Campus Team suggest new environmental initiatives to College Management?	Suggestions of improvement of environmental performance are always welcomed by Management. Installation of solar lighting, rain water harvestings,

	tree plantation at various locations around the college, health related camps, safety related camps (gas safety at canteen) etc was also discussed as part of brain storming sessions within the meetings.
Have you established an environmental mission/vision for your campus?	The Principal of college is persistent and resolved to make the campus more eco-friendly in due course of time. Efforts various efforts are already initiated towards implementation sustainable initiatives, application of efficient technologies to save energy, plantation etc
Is the college encouraging sustainable behavior via: <ul style="list-style-type: none"> ➤ Education campaigns? ➤ Posters, placards, messages ➤ Incentives? ➤ Contests? ➤ Awards? 	College conducts various activities to create awareness amongst the students and society on environment safety, cleanliness and protection. <ul style="list-style-type: none"> ➤ Tree plantation drive was carried out in the college campus on 5th June 2022 by all the staff (Teaching & Non-Teaching) members of the college and 200 trees were planted on the occasion of World Environment Day. ➤ Cleanliness drive was undertaken in Satpur, Chunchale shivar area on 1st October 2022 by college staff and students under “Swachhta Abhyaan”. ➤ “Tree Rakshabandhan” day was celebrated on Rakshabandhan festival occasion on 12th August 2022. Please refer Annexure IV and XIV for details
Is the college staff modeling sustainable behavior for students, peers, and community?	<ul style="list-style-type: none"> ➤ The Staff of the college utilize the public transport (State Transport) for commuting. ➤ Use of cycle is promoted by the college parking is meant for the cycles in the premises. No fossil fuel based vehicles are allowed inside the campus. ➤ Please refer above assessments for additional details
Do students model sustainable behavior for staff, peers, and community?	The students of the college utilize the public transport (State Transport) for commuting. As stated above use of cycles is promoted. Students participate in activities conducted by college on environment and sustainable development. In addition please refer above assessments.
Is the college sharing learning internally via: Posters, placards, messages? Assemblies? <ul style="list-style-type: none"> • Classroom presentations? • Training/professional development? • Posters/bulletin boards? • Newsletter? • Website? 	Training programmes and sessions are arranged regularly. Displayed posters and placards in building, gathering areas and passages.
Does the college offer energy conservation lessons?	Energy and Environment conservation is part of the curriculum study for second year of MBA.
Is the college sharing its learning externally via 1. Paper presentations? 2. Newsletter?	The students are encouraged to present projects on topic related to environmental aspects. The college is

3. Website?	also going to make the Green Audit Report public so that learning's of college are shared
<p>Further Scope of Improvement: At organization level, the college needs to Establish long term improvement objectives to further reduce energy consumption, water consumption and fuel consumption and reflect the same in form of dedicated Environment Policy. Establishment of the dedicated Environment Policy in line with material aspects to achieve long term improvement objectives and continual improvement needs to be initiated.</p>	
<p>Conclusion:</p> <ul style="list-style-type: none"> • Active involvement of Organization is observed. • Adequate awareness amongst the students and other stakeholders (faculty, other staffs, service providers, etc.) is observed and reflected from their behaviour. 	

2. Creation of Awareness

Are the objectives of green audit clearly understood by the institute	<p>Yes and the objectives are unambiguously stated as below</p> <ul style="list-style-type: none"> ➤ To spread awareness amongst the students and the surrounding community about the environmental impact due to operations associated with their teaching institution. ➤ To sensitize them how to address the situation at the local and personal level by conducting programmes, camps and other means as feasible. ➤ To explore possibilities to use renewable energy sources to avoid Greenhouse Gases (GHG) missions and also reduce power cost. ➤ To increase the green cover. ➤ To vigorously and responsibly position the institute for active contribution in Clean India Mission undertaken by the Governments. ➤ To identify ways and means to sustainably contribute and reduce gaps and become environment friendly.
Are there posters/guidance displayed to remind students and staff of good practices?	No
Are the students aware of energy sources?	The major source of energy is electricity followed by usage of petrol in the generator as back in case of failure of LT Line electricity. Students are aware of these sources of energy which are utilized by the college.
Is college tracking its electrical energy usage?	There is 1 meter which measures the electricity imported by the college. The readings of annual electricity consumption is included as part of this report under chapter 11.
Is college offering energy conservation lessons and programs?	<ul style="list-style-type: none"> • College has created awareness among the faculty and students to reduce energy wastage. • The college has appropriately disabled the

	<p>screen savers and programmed the computers for sleep mode operations.</p> <ul style="list-style-type: none"> The usage policy of photocopiers, fax machines and other equipment users is “POWER ON” when in use and “POWER OFF” when not in use. There is no idle power consumption. Please refer Annexure VI and XIV for details
Do students and staff know where their water comes from?	The main source of water is gov. tap from nearby dam/ Pond and water it is utilized in the Drinking. Wash rooms and cleaning.
Is college encouraging responsible water use via: <ul style="list-style-type: none"> Posters, placards? Incentives? Contests? Awards? 	Yes, by posters, placards, contests and awards to winner of contest.
How is trash managed outside the campus?	The dry and wet sorted dustbins are also placed.
Further Scope of Improvement: <ul style="list-style-type: none"> College may calculate the water footprint to compare its performance with national and international consumption standards and communicate with its stakeholders. 	
Conclusion: <ul style="list-style-type: none"> Visible communication on environmental issues. Additional measures in form of events can be organized by college 	

3. Lighting

How college is utilizing daylight	College building is situated in such a manner that it is getting the full advantage of good airflow enabling good ventilation and sun light. It is a building having large windows and open space in all directions. During the day time, it is possible to carry out activities without air conditioners and air fans during operational days										
Is college utilizing any incandescent lights? Can they be replaced with compact fluorescents (energy saving bulbs)?	<p>The college timings is from 9.30 AM to 5.30 PM and the office timing is 10 AM to 6 PM Thus, requirement of daytime lighting is limited.</p> <p>Energy efficient lighting system is followed. the contemporary best practices will recommendations on lighting by Bureau of Energy Efficiency, Book-3, Chapter 8, table 8.1</p> <table border="1"> <thead> <tr> <th>Type of Lamp</th> <th>Range</th> <th>Avg</th> <th>Colour rendering Index</th> <th>Typical Application</th> </tr> </thead> <tbody> <tr> <td>Incandescent</td> <td>8 - 18</td> <td>14</td> <td>Excellent</td> <td>Homes, restaurants, General Lighting, Emergency Lighting</td> </tr> </tbody> </table>	Type of Lamp	Range	Avg	Colour rendering Index	Typical Application	Incandescent	8 - 18	14	Excellent	Homes, restaurants, General Lighting, Emergency Lighting
Type of Lamp	Range	Avg	Colour rendering Index	Typical Application							
Incandescent	8 - 18	14	Excellent	Homes, restaurants, General Lighting, Emergency Lighting							

	Fluorescent Lamps	46 -60	50	Good w.r.t. coating (67 -77)	Offices, Shops, Hospitals, Homes.
	Compact Fluorescent Lamps (CFL)	40 - 70	60	Very Good (85)	Offices, Shops, Hospitals, Homes.
	High Pressure Mercury (HPMV)	44 - 57	50	White	General Lighting in factories, Garages car parking, flood Lighting
	LED lamps	30-50	40	Good (70)	Reading Lights, Desk Lamps, night Lights, Spotlights, security lights, signage lighting, etc.

Thus, LED's are considered for installation as night lights, security street lights by the college. The term reading light normally refers to lamps or lights which focus light dedicated for readings, thus LEDs were not considered for class room lightings initially. Fluorescent lamps were utilized for class rooms (as the same are stated to be suitable for office illumination level requirements). LED lights started replacing the conventional tube light as a replacement measure after failure. LED lighting survey was also undertaken by the Audit Team. Please refer below assessments in details.

During the onsite visit the Audit Team visited each department and physically counted the installed lights by their types (Fluorescent tube lamp, CFL and LED). It is confirmed that there is no incandescent light installed for lighting purpose.

LED light has lumen/ watt in the range of 20-40

Recommendation: As per the replacement policy the college should continue to install LED lights in the class rooms in place of conventional tube lights.

Has the college evaluated existing lighting for opportunities to reduce lighting in over-lit areas?	The lighting arrangements are well balanced with arrangements to switch ON and OFF lights independently. There are therefore practically no
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	over lit areas.
Are the light switched duly labeled to make more obvious which switches relate to which appliances?	Switch arrangements are lucid. The fan switches are adjacent to fan speed regulators. Light switches are arranged in order of lighting.
Are the lights switched off to make use of daylight? (e.g. lights parallel to windows or in corridors)	There is minimum or practically negligible use of lights during day time as the building structure has possibility of daylight usage. The lux level in the classrooms was measured and found 200.
Is the college utilizing natural lighting when possible?	Yes, natural lighting is first preference.
For the spaces like store rooms, toilets, kitchen areas, copying rooms, corridors etc is there scope for automatic lighting controls?	The policy of college is to switch off the lights and other electrical equipment's when they are not in use. The appropriate usage of the resources and control on its avoidance is one of core responsibilities of the respective HOD. Since, the culture of useful gain is practiced over the years, there is a responsible and natural tendency amongst staff and students to avoid wastage. Every in-charge is responsible for the lab electrical utilities, every faculty including the HOD is responsible for switching off the un-necessary lightings in his / her cabin.
Can main lighting ever be switched off and dedicated lighting be used?	As such there are no dedicated lamps which can replace overhead lighting. However, redundant lighting can be switched off when it is not required. Lights above desk can be operated and other overheads lights can be switched off
Are the light fittings clean?	Cleanliness is well maintained. In-house light fittings are cleaned regularly. The light fitting in the veranda needs cleaning. The College Team clarified that the excess dust due to the construction activity has caused the dusting of the light fitting and same will be attended after the construction is concluded.
Do windows and skylights need cleaning to allow in more natural light?	The window and skylight are clean. Cleaning is with utmost care and regular cleaning schedules were observed by the Audit Team during the course of Audit.
Has the college installed lighting occupancy sensors?	No, lights are negligibly operated during day time. The lights are operated manually.
Is there mechanism in place to immediately report inoperable occupancy light sensors?	NA as no light sensor is installed.
What is the % contribution of the LED Lighting?	We have evaluated the 96% LED installation at Passage and ground and all other floor. The value is determined and presented under Annexure V.

Further Scope of Improvement: A dedicated stabilizer can be installed and the lighting load can be transferred. With the help of voltage regulation, further energy savings are possible from the fluorescent lamps. Please refer below table which provides impact of energy savings from voltage regulations (reference Bureau of Energy Efficiency, Book 3, Chapter 8).

Conclusion:

Collage is excellent with respect to the usage of day lighting. Sufficient lux levels above 200 are common on the work-stations based on the survey of audit team.

- Feedback was taken with students and employees and no complains was identified within respect to the sufficiency of lighting measures.
- Negligible lighting load is observed during day time as college makes good use of daylight.
- Replacement policy to further improve lighting efficiency (as stated above) is already implemented.

4. Cooling and Ventilation

How are the Air Conditioning Controls? For the local controls, how it is ensured that AC is working only ON when necessary. What is temperature setting of the AC?	NA as there are no AC's in the college.
What is the mechanism of reducing heat in-grace? Are the closing blinds or fitting reflective film to windows installed to reduce solar gain?	The building is designed to make best use of day light and avoid the heat in-grace.
Are all external doors and windows closed when air conditioning is on?	NA
Is there a scenario where air conditioning is wasted in unused spaces, such as cupboards, corridors?	NA
Are Efficient and energy labelled AC's utilized for cooling purposes?	NA

5. Operation of Electronic Equipment's

Are computers, printers, photocopiers and other equipment switched off at the end of the day?	Yes
Is there any mechanism by which the screens and other equipment be controlled during the day?	The college has appropriately disabled the screen savers and programmed the computers for sleep mode operations. Please refer to Annexure VI
Are the screen savers disabled?	Yes, please refer above assessment.
Are computers programmed to 'power down' mode	Computers are programmed for the sleep operation.
Is the user entrusted with the rights to modify standby settings? (e.g. TVs, LCD projectors, printers etc.)	No, the college has the administrative rights. Such changes cannot be initiated by users.
What is status of the photocopiers, fax machines and other equipment? Are they programmed on 'Energy Saver' mode during the day?	The equipment like photocopiers, are shutdown when not in use, computers are turned to sleep mode whenever not in use
Are the power management settings enabled on all the computers/ monitors/ all-in-one machines?	All machines are governed by the college. All are equipped by power management settings as already described above.

Conclusion: The Electrical equipment are well operated. Redundant operations are avoided.

6. Water Management

Are any water leaks identified?	The urinals are flushed periodically and manually. The urinals need to be equipped with push button taps. Please refer below recommendation.
Are taps left running? Are there any dripping taps? Do taps need maintenance?	No such instance was observed. Periodic maintenance to be done for regular check ups
Are push button taps utilized?	The toilet washrooms are not equipped with the push buttons. Please refer below recommendation
Is water escaping from overflows either inside or outside buildings?	No such instance was identified during onsite audit.
Has the college installed low flow faucets, automatic faucets, and/or faucet aerators?	Recommendation for Improvement: The college Management needs to consider dedicated flush at urinals (in place of periodic manual flushing), low-flow faucets, automatic faucets, and/or faucet aerators as the replacement for the existing conventional taps.
Has the college installed low flow shower heads at Hostel?	Hostel is not assessed under the scope.
Has the college collected rainwater for onsite watering needs?	No. the rain water harvesting is the proposed work however the college management has ensured to install rain water harvesting system in next 6 month proposed work. The college has made such an arrangement that the rain water in the campus will be automatically flown and collected in a well in the campus area.
Is the college collecting the condensation from A/C units for onsite watering needs?	NA
Has the college optimized its irrigation system for gardening to: <ul style="list-style-type: none"> Operate at night or early morning hours to minimize evaporation? Water the minimum time and frequency necessary for the applicable vegetation? 	The Assessment Team noted that college is utilizing the well and rejected water for watering nearby plants. For rest of gardening area of college, the evaporation losses from soil surface are reduced by watering plants in evening. It is noted that there is drip irrigation system implemented by college.
What is amount of rain water harvested?	NA
Are there any community based projects implemented by the college?	Cleanliness drives under “Swachta Abhiyaan” is undertaken by college NSS unit of college undertakes cleanliness drive,

	awareness regarding pollution, tree plantation etc
Further Scope of Improvement: Long Term Measure: <ul style="list-style-type: none"> • The college Management needs to consider the low-flow faucets, automatic faucets, and/or faucet aerators as the replacement for the existing conventional taps. • College needs to install the metering arrangement to measure the water drawn from bore well. • College can undertake determination of water footprint and calibrate its specific water consumption with the established National and International Norms. • Rain Water Harvesting System needs to be installed. 	
Conclusion: <ul style="list-style-type: none"> • The toilet washrooms are not equipped with the push buttons. • Practically efficient measures are implemented for gardening. 	

7. Water Quality

Is the college campus maintained clean to minimize litter polluting water table	<p>The college premise is kept clean. Thus the chances of litter polluting water table are negligible. Soak pit is there to collect the minor amount of effluents.</p> <p>Recommendation: Effluent treatment plant needs to be installed before discharging the effluent to soak pit.</p>
Is the college monitoring drinking water quality regularly? If yes, what is the frequency	<p>Presently the college is having RO machine, but the college management has made arrangements and payments to the government for its installation and it will be installed soon. Please refer Annexure XII for details</p> <p>Recommendation: The college needs to install the Another one more RO machine at the earliest.</p>
Further Scope of Improvement: <ul style="list-style-type: none"> • Effluent treatment plant needs to be installed before discharging the effluent to soak pit. 	
Conclusion: The college has made payment to the concern organization for installing the RO system.	

8. Renewable Energy

Is the college having solar, wind, or other forms of renewable energy?	No, there is no scope in the existing building for installation of solar PV system, but the management is considered in proposed 6 months' work.
Is the college purchasing renewable power from third party or renewable energy certificates for its electricity use?	Only LT Line electricity is purchased. This is verified from the submitted bills.

Is the college offering renewable energy lessons / programs?	This already assessed under chapter 01 of this report.
Further Scope of Improvement: The college needs to chalk out long term strategy towards carbon neutrality and install renewable electricity generation (solar PV) to offset emissions of LT Line based electricity generation. College can also buy carbon credits (registered under CDM, VCS) to offset its GHG emissions.	
Conclusion: No solar PV system is installed in the college.	

9. Transportation

Is college encouraging transportation measures like bicycle, Bulk transport, walking?	<ul style="list-style-type: none"> • Bicycles: The college always promote pollution free transportation. Most of the students of our college are from the rural area. They come in the college by state transport buses up to the bus stand. They come into the college by walk. As per survey conducted by college near about to 99 % students commute by State Transport, bicycles and walking and only 1% of the students by their two wheelers. • Public Transport: The students come in the college by using State Transport buses. Most of the staff of our college is living in the vicinity so they commute by State Transport, walking and 5% by 2 wheelers.
Is the college providing eco-friendly or less GHG intensive transportation matching services? (Example carpools, college buses etc)	The Staff and students of the college utilize the public transport (State transport) for commuting. Only the Principal & top management travels by car.
What are the good practices pertaining to Transport?	Only 1 of the staff members use car, 5% of the staff members and 1% of the students use 2 wheelers and rest all the staff and students travel by State Transport or Institute Bus
Conclusion: The college management, its employees and the students observe good practices of transportation/ commutation.	

10. Purchasing Practices

Describe the purchasing that confirms the better environmental performance?	Printers with Simplex (One Sided) printing facility is installed at the computer lab and Library (Current Book -2970Nos.). There is no culture of the two sided printing. Paper is wasted.
How does the college limit the purchase of single serve bottles and containers?	The college staff and students drink water from the water booth of the college or they bring their own water bottles. Single served

	bottles are not utilized unless insisted by the guests.
Is the college having water fountains/stations to promote easy filling of reusable water bottles?	The college is going to install the one more RO machine soon as their process of sanctioning has been in process.
Further Scope of Improvement: The college should further emphasize on the purchase of: <ul style="list-style-type: none"> ➤ no- to low-odor (VOC) markers ➤ no- to low-VOC paints? (via Facilities) ➤ paper/paper products with maximum recycled content ➤ refillable pens/pencils ➤ compostable bags for compost collection 	
Conclusion: <ul style="list-style-type: none"> ➤ The GHG intensive technologies are well managed. ➤ Focus on the replacement of lighting as per above stated recommendation needs to be considered ➤ One sided papers are utilized by college to avoid use of fresh papers ➤ Policy for the disposal of Archived paper Records needs to be formed by college 	

11. Carbon Footprint

Has the college calculated its carbon footprint?	For the first time college is calculating the carbon footprint. The data applicable to Scope-2 emission (electricity purchase from grid) is available. The emissions pertaining to Scope-01 are limited to petrol use in Generator and LPG usage in canteen.
How is college promoting zero emission Transportation options?	Not applicable. There is no internal Transportation within the college.
Are all the applicable emission sources calculated?	The emission source pertaining to LT Line based electricity source is calculated. Scope-01 emission source data pertaining petrol consumption in generator, LPG consumption in canteen are calculated, for present verification. It was noted that there was no refrigerant charging during the applied verification period. Scope-01 Emissions: Petrol Consumption in Generator : 15Lit LPG consumption in canteen : 180 ⁴ kg Equivalent Scope-01 Emissions are as below LPG consumption in canteen : 0.60 tCO ₂ Thus, Scope 01 emissions are 0.716 ~ 1 tCO ₂

	<p>Scope -2 Emissions are tabulated as follows:</p> <p>Electricity Consumption : April-22 to March-23</p> <p>Wh From Meter-1 : 997</p> <p>Grid Emission Factor as per CEA Version 13⁶ (0.96 tCO₂/MWh) : 0.5664⁷</p> <p>Total CO₂ emissions for financial year 2022 - 23 : 1</p>
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12. Waste Management

<p>How the college reduces its paper waste via:</p> <ul style="list-style-type: none"> • Encouraging digital reading, note taking, and activities? • Setting printers and computers to default to duplex (double-sided) printing? • Reducing margins and white space on documents that must be printed? • Printing multiple pages per sheet? • Minimizing paper correspondence with families? • Opting out of unwanted mail? 	<ul style="list-style-type: none"> • The class room and labs are well ventilated and spacious. This minimizes suffocation to students by improving air changes and hence the air quality. • The college has adopted the duplex printers, which enables the complete usage of the paper areas • The students are encouraged to use waste bins which are placed in the college. • The recycling/ disposal system adopted by the college is as below.
<p>How the college reduces its paper waste via:</p> <ul style="list-style-type: none"> • Encouraging digital reading, note taking, and activities? • Setting printers and computers to default to duplex (double-sided) printing? • Reducing margins and white space on documents that must be printed? • Printing multiple pages per sheet? • Minimizing paper correspondence with families? • Opting out of unwanted mail? 	<p>Different types are generated within campus which include</p> <ul style="list-style-type: none"> • Canteen Waste: Canteen Facility is not there, waste collected in segregated dustbins. • E-Waste: The E-waste generally includes the tube lights, CFL, LED, Computer parts are stored into the scrap room of college and is given to the ragman for disposal. • Plant Waste: The plant waste is composted in-house. The liquid waste from lavatories and other sources are disposed in the soakage pit.
<p>Further Scope of Improvement:</p> <p>The college can introduce its own recycling system to process wet waste in a Compost Machine to transfer it into nutrient rich compost for the botanical garden.</p> <p>The disposal system for e-waste needs to be formalized and streamlined.</p>	

13. **Plantation by College**

The college possesses an area of around 2 acres. Every year, plantation programme is carried out in the campus as well as outside the campus (as per the resolution and plan undertaken by the Maharashtra Government), our college is also involved in Maharashtra Green Army to undertake plantation programme in surrounding locality. (Ref. Annex IV)

The details of the existing full grown up trees, plants and shrubs in college
 List of plants:

Sr. No.	Plants/ Tress Name	Qty.
<u>1</u>	<u>Mango</u>	<u>75</u>
<u>2</u>	<u>Neem</u>	<u>15</u>
<u>3</u>	<u>Ashoka</u>	<u>01</u>
<u>4</u>	<u>Gulmohar / Delonix regia</u>	<u>15</u>
<u>5</u>	<u>Banyan trees</u>	<u>01</u>
<u>6</u>	<u>Coconut</u>	<u>150</u>
<u>7</u>	<u>Gardening / Flower trees</u>	<u>12</u>
<u>8</u>	<u>Chiku</u>	<u>2</u>
<u>9</u>	<u>Palm</u>	<u>25</u>
<u>10</u>	<u>Black currants</u>	<u>04</u>
<u>11</u>	<u>Jujube</u>	<u>10</u>
<u>12</u>	<u>Jamun</u>	<u>05</u>

Annexure

Annexure - I: Interviewed College Staff / Students

List of College Staff

Sr.No	Name Of Staff
1	Dr . Udmalle Rohidas Namdev (Principal)
2	Mrs. Gavhane Swati Narayan
3	Mr. Achyut Rangnath Tanpur
4	Dr. Kadam Tejaswinee Anil
5	Mrs Lokhande Samata Rishikant
6	Mr. Nitin Uttam Khillare
7	Mr. Ashru Sadashiv Salve
8	Mrs. Manisha Ekanath Bhoite
9	Mrs. Joshi Aprna Anant

Annexure -II: Reference Documents / Surveys

Sr. No	Reference Documents / Surveys pertaining to
1	Information regarding Garden Waste Management
2	Information regarding Liquid Waste Management
3	Measures for maintaining Cleanliness in Campus.
4	Measures for Garbage Collection and disposal
5	Plantation Measures
6	Electricity Bills for duration of August 2022 to July 2023
7	Roll Of Staff, Students & Management to Save Electricity In Campus.
8	Lighting Survey undertaken by the Green Audit Team
9	Waste Water Management Survey undertaken by the Green Audit Team

Annexure -III: Campus Committee

Sr.No	Name Of Staff
1	Dr. Udmalle Rohidas Namdev
2	Prof. Gavhane Swati Narayan
3	Prof. Achyut Rangnath Tanpur
4	Prof. Kadam Tejaswinee Anil
5	Prof. Joshi Aprna Anant
6	Prof. Karad Sunita Tulshiram

Annexure -IV: Photo Gallery of Institute Management



1. College Building



2. Class Room 1



3. Class Room 2



4. Principal Office



5. Computer Lab



6. Library



7. Parking



8. Play Ground



09. Water Storage pond 1: 10 million ltr



10. Water Dig well



11. Drinking Water: RO 1



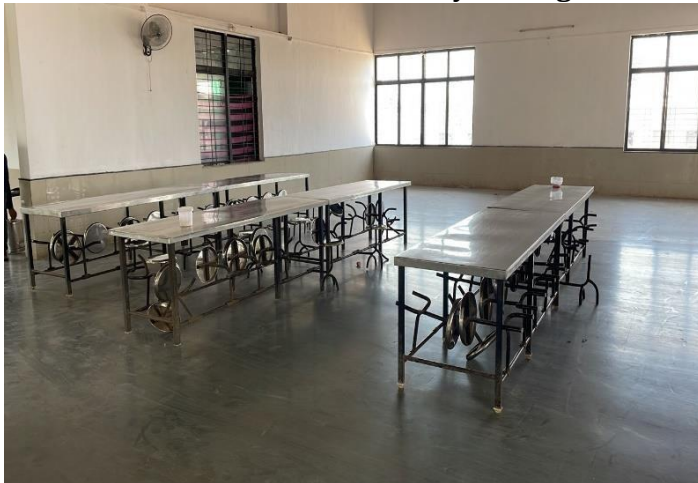
12. Tree Plantation



13. Swachha Bharat Abhiyan Program



14. Environment Day Program



15. Canteen



16. College Entry green Coverage



17. College Campus Tree coverage

Inspection Agency & Auditor Details.

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We have experience and resources to carry out certification activities for different sectors of economies in three areas of our system certification domains. Our system assessment methodises and procedures are systematic and process based. We have technically qualified and experienced system auditors to verify that you comply with minimum requirement of the standard. Our Eveready Supportive staff will be guiding you through systematic assessment and certification procedures and you can confidently deal with us for your management System requirements

With our unblemished credential and unmatched commitment, we assure you that we will be able to offer you best of our services that will help your business excel and remain competitive, cost effective, profitable and socially responsible organization

Auditor Profile

Nilesh Magare

Sr. Consultant, Lead Trainer, Lead Auditor

- ❖ Chemical Engineer
- ❖ Lead Auditor - ISO-9001 : 2015 – Quality Management Systems (TuV Austria & IRCA CQI)
- ❖ Lead Auditor – ISO 14001: 2015 – Environment Management Systems (TuV India Pvt. Ltd. & IRCA CQI.)
- ❖ Lead Auditor –OHSAS18001:2007 / ISO 45001:2018 Occupational Health and Safety Management Systems (BSCIC & IRCA CQI.)
- ❖ Registered Lead Auditor –ISO-9001 / ISO-14001 / OHSAS 18001 / ISO 45001 with AGSI, EICPL, BSCIC, IQCS, ECPL.
- ❖ Lead Auditor EnMS ISO 50000 2018
- ❖ Internal auditor for IATF 16949:2016

Jaywant Pagare





Sr. Consultant, Lead Trainer, Lead Auditor

- ❖ Computer Engineer
- ❖ Lead Auditor - ISO-9001 : 2015 – Quality Management Systems (TuV Austria & IRCA CQI)
- ❖ Lead Auditor – ISO 14001: 2015 – Environment Management Systems (TuV India Pvt. Ltd. & IRCA CQI.)
- ❖ Lead Auditor –OHSAS18001:2007 / ISO 45001:2018 Occupational Health and Safety Management Systems (BSCIC & IRCA CQI.)
- ❖ Registered Lead Auditor –ISO-9001 / ISO-14001 / OHSAS 18001 / ISO 45001 with AGSI, EICPL, BSCIC, IQCS, ECPL.
- ❖ Lead Auditor EnMS ISO 50000 2018
- ❖ Internal auditor for IATF 16949:2016
- ❖ Certification Head at EICPL
- ❖ Empaneled Third party Inspection channel Partner with China Inspection Agency

Snehal Dhengle

QMS/ EHS Auditor, Operation Manager (EICPL)

- ❖ Masters in Mechanical Engineering
- ❖ Lead Auditor - ISO-9001 : 2015 – Quality Management Systems
- ❖ Internal Auditor – ISO 14001: 2015 – Environment Management Systems
- ❖ Internal Auditor –OHSAS18001:2007 / ISO 45001:2018 Occupational Health and Safety Management Systems
- ❖ Internal Auditor EnMS ISO 50000 2018
- ❖ Internal auditor for IATF 16949:2016
- ❖ Certification Head at EICPL

<p>Lead Auditor/Auditor :- Mr. Jaywant Pagare</p> <p>Signature & stamp :-</p>   <p>Date :- 31/05/2023</p>	<p>CEO/ Representative :- Dr, Rohidas Namdeo Udmalle</p> <p>Signature & stamp :-</p>   <p>Date :- 31/05/2023</p>
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THANK YOU ...!!!