

Green Audit Report

(2023-24)



Deogiri Pratishthan Sanchalit
Tulsi computer science and Information Technology College Beed
Adarsh Nagar, DP Road, Beed - 431 122

Energy Audit report submitted by



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ACKNOWLEDGEMENT

We express our sincere gratitude to the Management & Principal Dr. Lankeshwar Thorat Sir for awarding us the assignment of Green Audit of their College Campus.

We are also thankful to various Head of Departments & other Staff members for helping us during the field measurements.



Kedar Khamitkar
Energy Auditor

Certified by Bureau of Energy Efficiency, Ministry of Power, Gov. of India

Empanelled Consultant MAHAURJA (Govt. of Maharashtra Institution)

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प्रतिज्ञा

हम सत्यनिष्ठा से प्रतिज्ञा करते हैं कि अपने सभी कार्यों में पेट्रोलियम उत्पादों के संरक्षण हेतु सतत प्रयासरत रहेंगे, ताकि देश की प्रगति के लिए आवश्यक इन सीमित संसाधनों की आपूर्ति अधिक समय तक सम्भव हो सके। आदर्श नागरिक होने के नाते हम लोगों को पेट्रोलियम पदार्थों के व्यर्थ उपयोग से बचने तथा पर्यावरण संरक्षण हेतु स्वच्छ ईंधन का प्रयोग करने के लिए जागरूक करेंगे।

Executive Summary:

Objective	Observation	Remarks / Recommendation
Assessment of knowledge and awareness of sustainability	College students & Staff using maximum natural sunlight. In the college found that exposure to natural light can lead to increased social interaction and better communication between students and teachers. (Attached Photo)	Good initiative. Awareness found in Staff & Students.
Green Cover - Plantation of Trees	No open ground available for plantation.	It is recommended to increase the Green Cover - gardening in the small porch or balcony in the college. Plants can help to purify the air and improve air quality.
Rain Water harvesting	Installed rainwater harvesting.	Install STP plant. STP unit removes contaminants from household sewage.
Bio Waste Management	The Bio Waste – Food Waste generated in the campus is proposed to be feed stock for Bio Gas plant.	Organic waste from kitchen Compost can be prepared within a concrete tank or mud pit.
Non Bio Waste	Non Bio Waste – Plastic Bottles / Paper Waste Metals waste is being collected in the dust bins placed across the campus. (Attached Photo)	It is proposed to install plastic bottle crusher, which can be sold as a Feed stock for the Plastic industry.
E Waste	E Waste – All Electronic Junk is generated in the campus in the form of Used Computer key boards/ Mouse/ CPU's/ Damaged Printers etc. (Attached Photo)	An agreement is in place with local Company to pick up the Ewaste each Month
Carbon Foot Print	Emission of Co2 @7222 Kg/year College Import Electricity from Maharashtra State Electricity Distribution Company Limited.	Install rooftop Solar power plant of 10 KWp to minimize carbon foot prints.

Chapter No.1 Scope of Work & Green Audit Methodology

Deogiri Pratishthan Sanchalit Tulsi Computer Science and Information Technology College Beed entrusted the work of conducting a detailed Green Audit of campus with the main objectives are as bellows:

Objectives of Green Audit:

1. To examine the current practices, which can impact on environment such as of resource utilization, waste management etc.
2. To identify and analyze significant environmental issues.
3. Setup goal, vision, and mission for Green practices in campus.
4. Establish and implement Environment Management in various departments.
5. Continuous assessment for betterment in performance in green

Need of Green Audit:

Green auditing is the process of identifying and determining whether institutions practices are eco-friendly and sustainable. Green audit regulates all such practices and gives an efficient way of natural resource utilization. In the era of climate change and resource depletion it is necessary to verify the processes and convert it in to green and clean one. Green audit provides an approach for it. It also increases overall consciousness among the people working in institution towards an environment.

Methodology of Green Audit:

Green Audit of college Campus has been conducted with specific methodology as follows:

STEPS FOR CONDUCTING ENVIRONMENTAL AUDITS



Goals of Green Audit:

Conducted a green audit of Deogiri Pratishthan Sanchalit Tulsi Computer Science and Information Technology College Beed Campus with specific goals as:

1. Identification and documentation of green practices followed by the Institute.
2. Identify strength and weakness in green practices.
3. Analyze and suggest solution for problems identified.
4. Assess facility of different types of waste management.
5. Increase environmental awareness throughout campus.
6. Identify and assess environmental risk.
7. Motivates staff for optimized sustainable use of available resources.
8. The long-term goal of the environmental audit program is to collect baseline data of environmental parameters and resolve environmental Issue before they become problem.



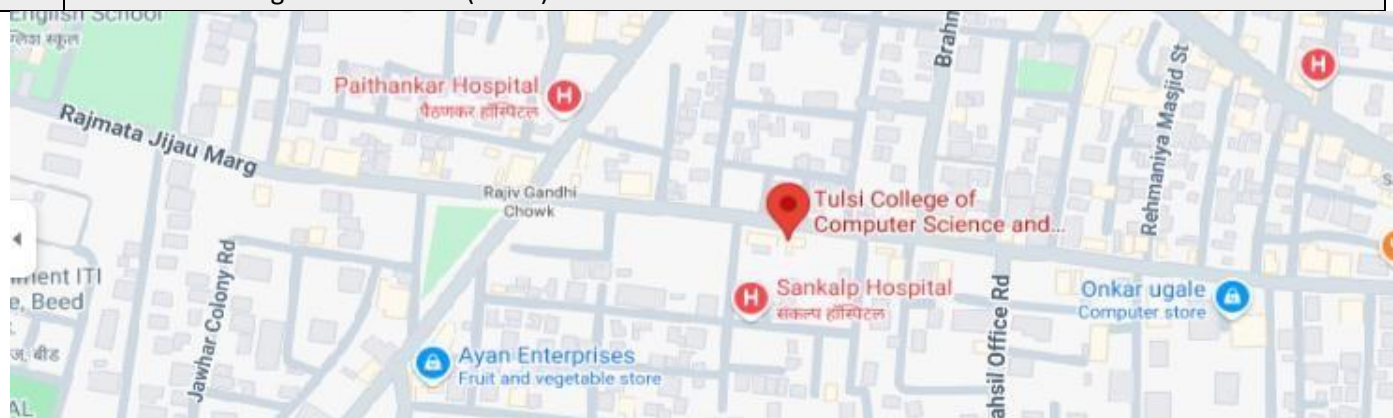
Chapter No.2 Introduction about the Institute

Deogiri Pratishthan Sanchalit Tulsi Computer Science and IT College, Beed is a leading IT educating minority institute affiliated to Dr. Babasaheb Ambedkar Marathwada University, Aurangabad started in 2006 & declared as a minority institute in 2012.

College is situated in the center of Beed city at Adarsh Nagar with campus area 589.42 sq. /m. College is mono-faculty i.e. science faculty program for UG like BCS, BCA, BSc & PG like, MSc computer & MMS are effectively run by college . Nearly 670 students from Beed and nearby villages are taking education in the college. College provides value added courses like communication skill etc, short term courses like MSCIT, DTP etc. Number of alumni students are performing their best in various careers or businesses. While keeping vision and mission in our mind, the college tries to develop good citizens with good moral values.



Sr.	Degree Courses offered
1	Bachelor of Science
2	Bachelor of Science (Computer Science)
3	Bachelor of Computer Application
4	Master of Science (Computer Science)
5	Master of Management Science (MCM)



Address : Shikshak Colony Rd, behind ITI Gov, Dnyaneshwar Nagar, Beed, Maharashtra 431122

Chapter No. 3: Natural daylight Light, and Ventilation Design Features in College

The

importance of day lighting in classrooms and its effect on college student's academic performance.



Observations :

Students and staff using maximum sun light in classroom. Every classroom for the students of college to be designed not only for high academic performance but also for the good health of the students. Natural Day lighting, can have a positive impact on students' academic performance as well as their health. Indeed, students spend 200 days a year in college and about 5-6 hours a day in classrooms at camps, and their environment can have a decisive effect on their academic performance.



Chapter No. 4: Study of Waste Management

Environmental consciousness and sustainability friendly initiatives

1. Solid waste management

- The college is taking utmost care of cleanliness and hygiene. Daily waste is collected by the cleaning staff and segregated into degradable and nondegradable waste.
- The leaves, all non-toxic and biodegradable waste, are collected and used to make compost through the composting process, for which pit was made in the campus.
- Solid waste is generated in the form of plastic, glass, metal, newspapers, lab manuals, etc. is stored at one place and scrapped periodically for recycling.
- Non degradable waste (Dry and wet) is collected separately empty bottles, cartons are collected regularly at one place and handed over to the municipal vehicle for collection and proper disposal.
- College is using number of software's Tally, ERP, SOUL, etc. for digitalization concept that made steps towards way to less paper use.
- Use of paper printed on one side is encouraged for printing drafts before final document, meeting minutes, and institute level notices in office practices reducing paper based waste.

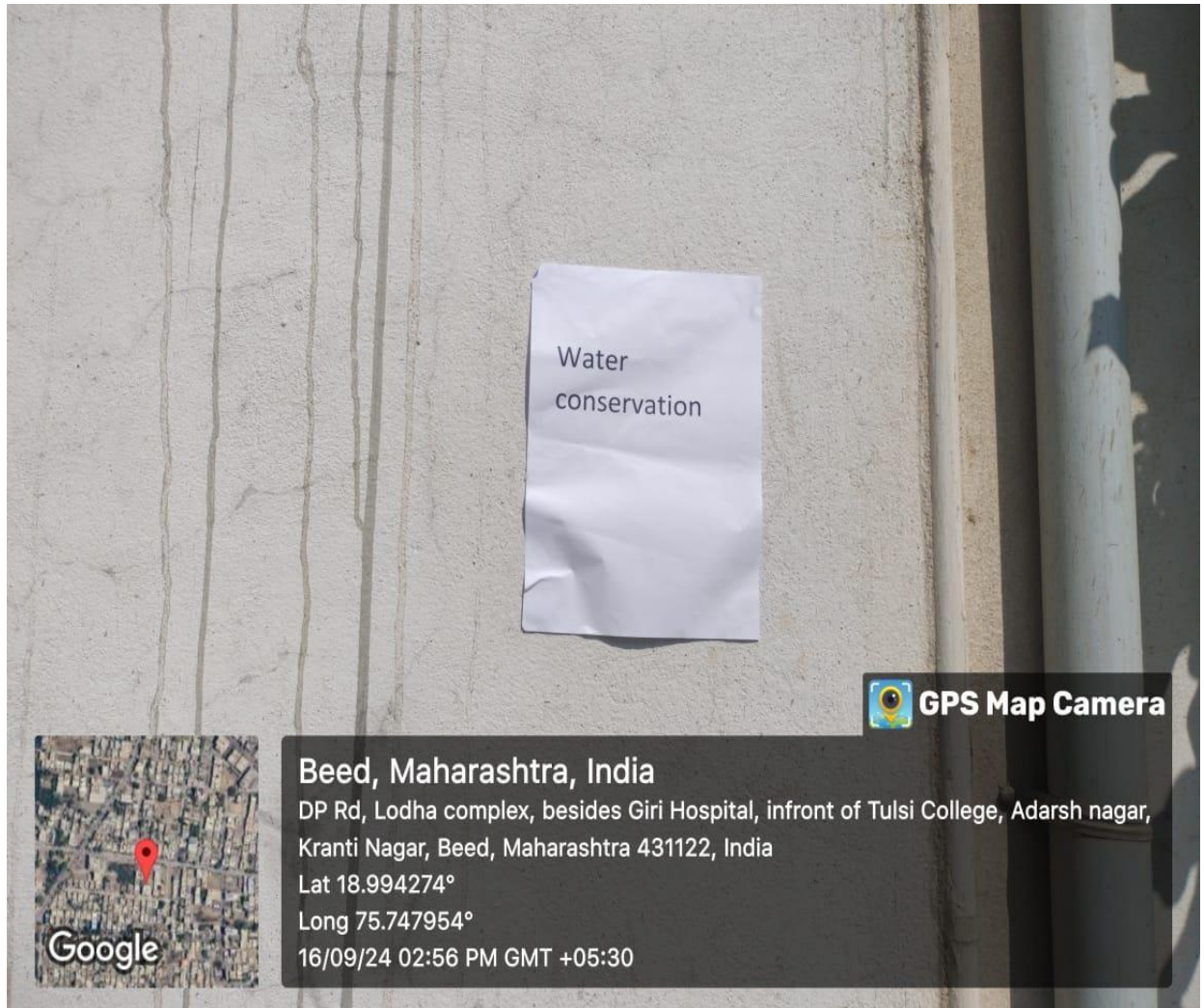
2. E-waste management

The college is having facility to collect and disposed off periodically the e-waste from institutes, E-wastes such as old computers, printers, laptops, scanner, CD's etc. batteries are collected centrally. E-waste is given to authorized vendors for possible recycling. We have put the collection box in the institute, where e-waste is collected. Students are also made aware of E-waste issues and its safe disposal.



3. **Rainwater Harvesting:**

Observations: Existing Waste Water Management (Shosh Khadda)



Suggestion: Install STP plant. STP unit removes contaminants from household sewage.

4. **E. Hazardous chemicals and radioactive waste management**

Campus is free from any kind of radioactive waste. Hazardous chemicals like strong acids, strong alkalis and oxidizing agents are used in restricted and small quantities. Separate space is provided for storage of hazardous chemicals with highly visible sign. Chemicals are diluted sufficiently and then released into soak pits. Use of hazardous liquid chemicals generating hazardous fumes is carried out strictly in fuming cupboard to avoid spread of fumes. Inorganic waste is disposed off with water, while organic waste is burned out.

Chapter No. 5 : Carbon Footprint

A **Carbon Foot print** is defined as the Total Greenhouse Gas emissions, emitted due to various activities. In this we compute the emissions of Carbon-Di-Oxide, by usage of the various forms of Energy used by the College for performing its day to day activities. The College Imports Electrical Energy during Night for various Electrical gadgets.

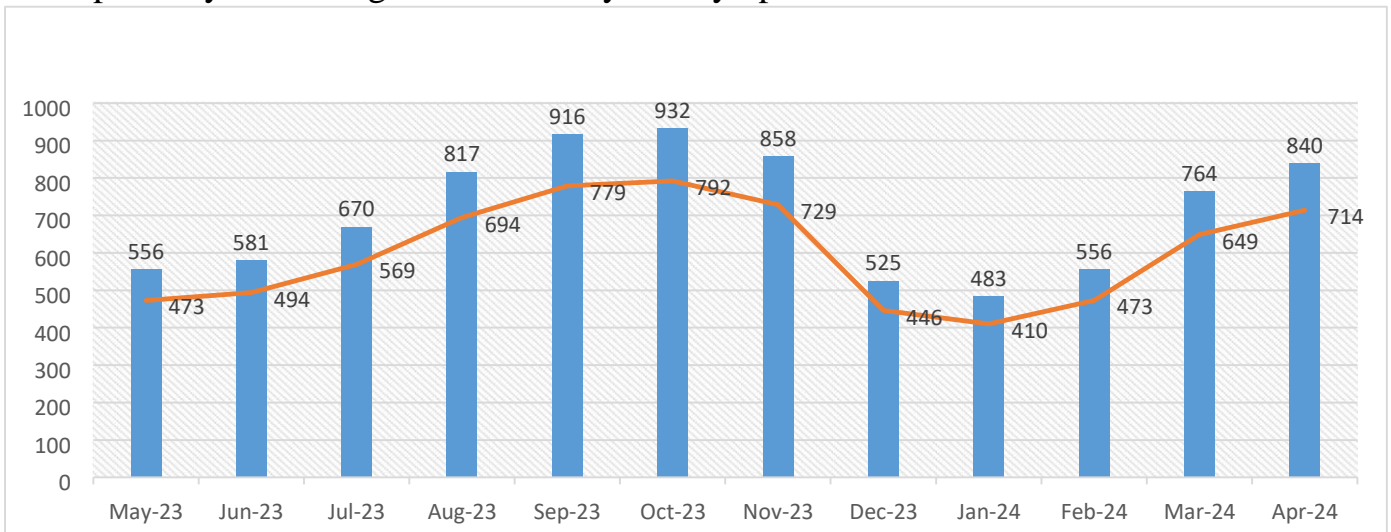


Basis for computation of CO2 Emissions: Electricity Import

The basis of Calculation for CO2 emissions due to Electrical Energy are as under

1 Unit (kWh) of Electrical Energy releases 0.8 Kg of CO2 into atmosphere

Based on the above Data we compute the CO2 emissions which are being released in to the atmosphere by the College due to its Day to Day operations



Annual Electricity Import details: 8498 KWh/Year

Co2 Emission in Kg. due to Electricity IMPORT / Month

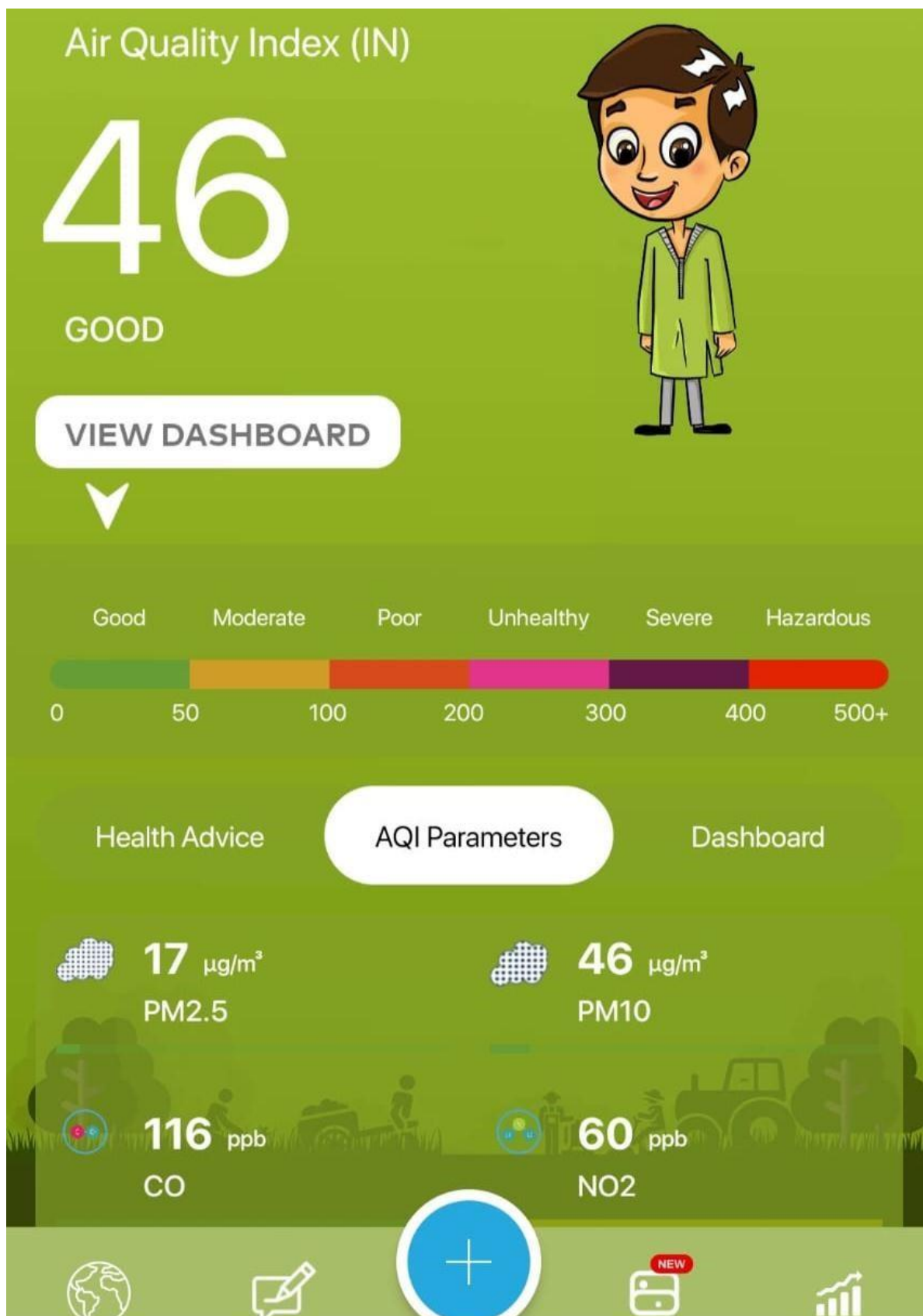
Observations:

The College Imports Electrical Energy during Night for various Electrical gadgets. Average Annually Carbon Emission due to Electricity IMPORT = 7222_Kg of CO2 into atmosphere.

Suggestions:

1. Install Solar Power plant of 10 KW capacity
2. Install Occupancy Sensors to minimize losses in Lighting System

Chapter No. 6 : Study of AQI Air Quality Index AQI



Observations: AQI: 46 Air Quality Index found Good

Chapter No. 7 :**Best Practices & Activities** Institute has been declared their Environment Policy**Policy Document On Environment and Energy Usage**

- To install LED bulbs in the complete campus to save energy
- To operate institute building in most efficient energy manner.
- Maximum use of Renewable Energy.
- Encourage a culture of Energy conservation on campus.
- To take additional measures to continuously improve our energy consumption.
- To develop and maintain Energy Management System based on ISO: 50001.
- To encourage use of advanced technology to minimize energy consumption.
- To engage in dialogue with the government agencies, and actively work with the local organizations in the areas of environment, energy efficiency and sustainable development.
- To strengthen our employees' and students' environmental knowledge and skills in order to improve our own environmental performance.
- To provide information and training opportunities on energy saving measures.
- To train our employees and students through our Enviro Club to make them 'Go Green Specialists' and partners to plant trees each year.

Principal



Best Practices & Activities

Several significant and fruitful awareness programs both students and staff of the Campus are arranged every year in the campus. Reflections from students are Evident how effective such awareness programs conducted in the campus. Major programs conducted in the campus during the last Five years.

NSS National Service Scheme

The National Service Scheme is an Indian government sector public service program conducted by the Ministry of Youth Affairs and Sports of the Government of India. Popularly known as NSS

Environmental education through systematic environmental management approach.



Lifestyle for Environment :



Best Practices & Activities

Green Club Activities : Cleanliness Drive



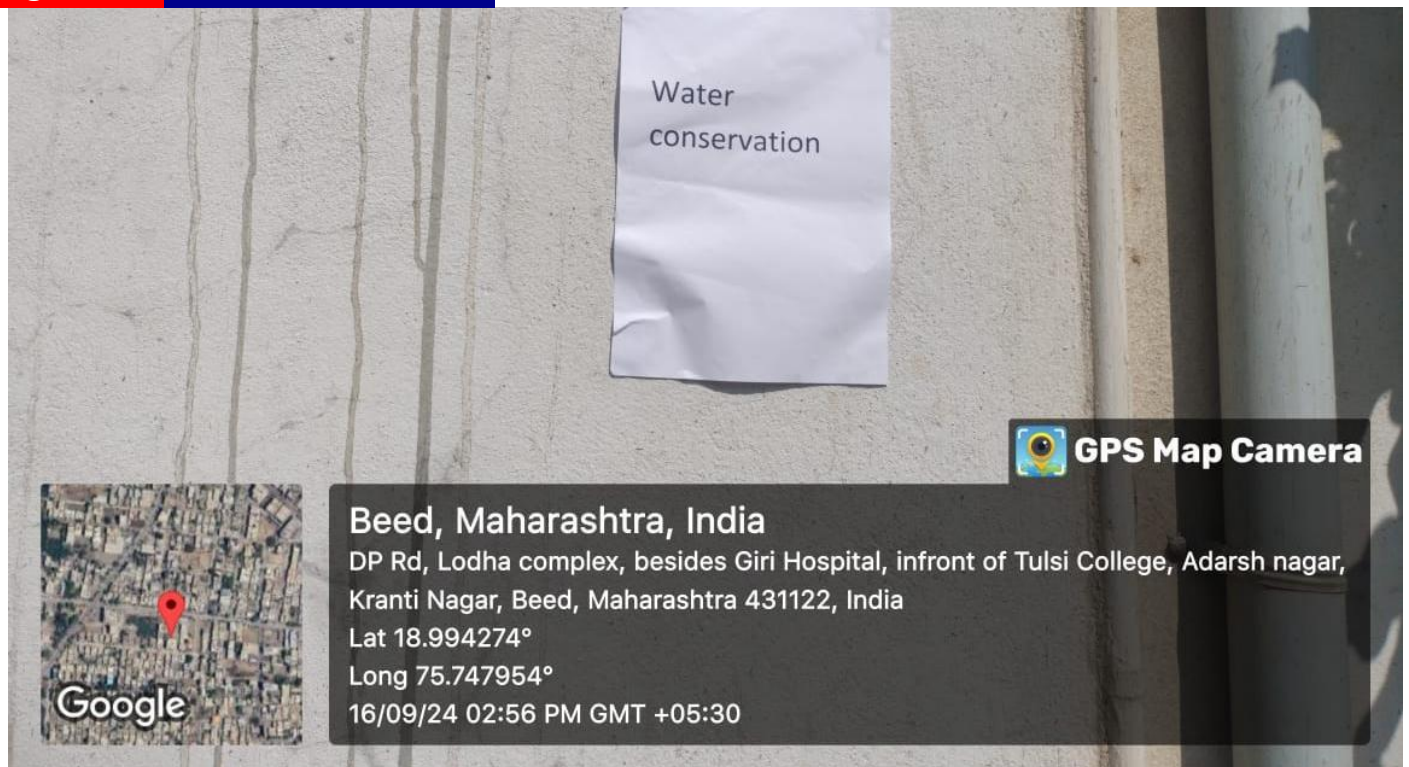
Campaigns: Nature camps, field trips and some of these activities are year round programs and others are regular year wiser semester wise or any other stipulated time bound programs.



Plantation on World Environment day

Signboard Don't waste water

Awareness for Students & Staff



Single use plastic banned in the college campus



FIVE WAYS TO CONTROL CLIMATE CHANGE



GREEN YOUR COMMUTE

Explore new options to commute and reduce your carbon footprint. Choose to walk, share car, ride bicycle, or electric vehicle.



CONSERVE FUEL

Stop the reckless of fuel and use it more sensibly. Conserving fuel reduces pollution for a cleaner and greener environment.



GET AN ENERGY AUDIT DONE

Get an energy audit done to determine the overuse of energy.



PLANT TREES

Plant trees and support reforestation. This way CO₂ level will be decreased, as trees use sunlight to absorb carbon dioxide from the atmosphere through photosynthesis and store it as carbon in the form of wood.



REDUCE, REUSE & RECYCLE

Reduce paper use, reuse whatever you can and recycle waste materials into a valuable resource. Be an environmentally conscious consumer.