

A
Report
On
GREEN AUDIT
For
Ahmednagar Jilha Maratha Vidya Prasarak Samaj's
**Shri Chhatrapati Shivaji Maharaj College of
Engineering, Nepti, Ahmednagar**



Prepared by



SARVASHREE TECHNOGREEN PVT LTD

Sarvashree Technogreen Private Limited,
Plot No. 16, Link Road, Near Sawali, Bhushannagar, Kedgaon,
Ahmednagar - 414001
Contact No. 7020756278
2022-2023

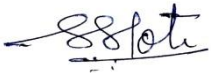
INDEX

SR. NO.	PARTICULARS	PAGE NO.
	ACKNOWLEDGEMENT	3
	DISCLAIMER	4
	EXECUTIVE SUMMARY	5
	INTRODUCTION	6
1	ABOUT	8
2	OBJECTIVES OF THE STUDY	10
3	METHODOLOGY	11
4	WATER MANAGEMENT	13
5	ENVIRONMENTAL MONITORING	15
6	ENERGY USE AND CONSERVATION	17
7	WASTE GENERATION	18
8	GREEN BELT AREA & BIO-DIVERSITY	21
9	RECOMMENDATIONS	27

ACKNOWLEDGEMENT

We express our sincere gratitude to the management **Ahmednagar Jilha Maratha Vidya Prasarak Samaj's, Shri Chhatrapati Shivaji Maharaj College of Engineering, Ahmednagar** for giving us an opportunity to carry out the project of Green Audit.

We are extremely thankful to all the staffs for their support in carrying out the studies and for input data, and measurements related to the project of Green audit. We also congratulate our Green audit team members for successfully completing the assignment in time and making their best efforts to add value.



Susheel Pote

Director

Sarvashree Technogreen Private Limited



DISCLAIMER

Green Audit Team has prepared this report for **Ahmednagar Jilha Maratha Vidya Prasarak Samaj's, Shri Chhatrapati Shivaji Maharaj College of Engineering, Ahmednagar** based on input data submitted by the representatives of Campus complemented with the best judgment capacity of the expert team. The audit was conducted on the sample basis by visiting the campus and interacting with the various stakeholders. Audit was conducted by interviewing the concerned persons, observing on-site implementation and verifying the documents and records.

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.

Prepared by:



Mr.Sujitkumar Pote

Sarvashree Technogreen Private Limited



EXECUTIVE SUMMARY

The rapid urbanization and economic development at local, regional and global level has led to several environmental and ecological crises. Eco campus is a concept rooted to all over the world to make them sustainable because of their mass resource utilization and waste discharge in to the environment. On this background it becomes essential to adopt the system of the Green Campus for the institute which will lead for sustainable development.

Ahmednagar Jilha Maratha Vidya Prasarak Samaj's, Shri Chhatrapati Shivaji Maharaj College of Engineering, Ahmednagar is deeply concerned and unconditionally believes that there is an urgent need to address these fundamental problems and reverse the trends. Being a premier institution of higher learning, the campus has initiated 'The Green Campus' program two years back that actively promote the various projects for the environment protection and sustainability.

The purpose of the audit was to ensure that the practices followed in the campus are in accordance with the Green Policy adopted by the institution. The methodology includes: preparation and filling up of questionnaire, physical inspection of the campus, observation and review of the documentation, interviewing key persons, data analysis, measurements and recommendations. It works on the several facets of 'Green Campus' including Water Conservation, Tree Plantation, Waste Management, Paperless Work, Alternative Energy and Mapping of Biodiversity. With this in mind, the specific objectives of the audit are to evaluate the adequacy of the management control framework of environment sustainability as well as the degree to which the departments are in compliance with the applicable regulations, policies and standards. It can make a tremendous impact on student's health and learning campus operational costs and the environment. The criteria, methods and recommendations used in the audit are based on the identified risks.

INTRODUCTION

The term “Green” means eco-friendly or not damaging the environment. This can acronymically be called as “Global Readiness in Ensuring Ecological Neutrality” (GREEN). Green Audit can be defined as systematic identification, quantification, recording, reporting and analysis of components of environmental diversity. Green accounting can be defined as systematic identification quantification, recording, reporting & analysis of components of ecological diversity & expressing the same in financial or social terms. “Green Auditing”, an umbrella term, is known by another name “Environmental Auditing”. The ‘Green Audit’ aims to analyse environmental practices within and outside the campus, which will have an impact on the eco-friendly ambience. It was initiated with the motive of inspecting the work conducted within the organizations whose exercises can cause risk to the health of inhabitants and the environment. Through Green Audit, one gets a direction as how to improve the condition of environment and there are various factors that have determined the growth of carrying out Green Audit. Educational institutions have broad impacts on the world around them, both negative and positive. The activities pursued by campus can create a variety of adverse environmental impacts. But they are also in a unique position as educational institutions to be leaders in pursuing environmentally sustainable solutions.

On the occasion of World Environment Day – 2022 an initiative was taken by **Ahmednagar Jilha Maratha Vidya Prasarak Samaj’s, Shri Chhatrapati Shivaji Maharaj College of Engineering, Ahmednagar** and expressed its commitment to sustainability while forming a committee to conduct audit of campus and its facilities. Institute has taken a number of positive steps to reduce its environmental impact. But many areas remain in which substantial improvements can be made. This report serves to highlight some accomplishments of and to make recommendations for improving the campus Green and environmental sustainability.

We have focused on certain indicators, covering an extremely wide range of environmental impacts. For each indicator, we establish a benchmark to evaluate College’s overall performance. We examine the performance of College’s on each of these indicators, and offer recommendations about how the campus can reduce its environmental impact within each indicator.

We hope that the time to time Green Audit will provide an accurate snapshot of University’s environmental impact at this point in time, and that it will aid the campus in prioritizing positive steps it can take to improve overall sustainability. We intend this document to be revisited annually and updated by the Institute.

Green Audit can be defined as systematic identification, quantification, recording, reporting and analysis of components of environmental diversity. The ‘Green Audit’ aims to analyze environmental practices

within and outside the campus, which will have an impact on the eco-friendly ambience. It was initiated with the motive of inspecting the work conducted within the organizations whose exercises can cause risk to the health of inhabitants and the environment. Through Green Audit, one gets a direction as how to improve the condition of environment and there are various factors that have determined the growth by carrying out Green Audit.

Green audit is assigned to the criterion 7 of NAAC, National Assessment and Accreditation Council which is a self-governing organization of India.

1. INTRODUCTION

Background

Ahmednagar Jilha Maratha Vidya Prasarak Samaj's, Shri Chhatrapati Shivaji Maharaj College of Engineering, is affiliated by Savitribai Phule Pune University. The journey of Shri Chhatrapati Shivaji Maharaj College of Engineering began on year 2011 with a vision and mission of Shri Chhatrapati Shivaji Maharaj College of Engineering "to impart quality education through effective teaching learning methodologies".

Today, the college has four faculties – Civil Engineering, Mechanical Engineering, Electronic and Telecommunication Engineering and Computer Engineering. This is also certified by ISO 9001:2015. The campus has strength of 825 students and 47 teaching faculty. The campus includes a Main Block, Canteen, Lecture Rooms, a Central Library, Auditorium, Laboratories and Computer Labs. The major water source is Mula Dam. MIDC supplies water to Institutes. Electricity power needs for the entire campus is met through Off-grid solar power and MSEB.

Table 1.1 Departments

Departments:
Electronics and Tele Communication
Computer
Mechanical
Civil

Table 1.2 Total population

Current Population in Campus:				
Sr. No.	No of students	No of Teachers	No of non-teaching staff	Total
1	825	47	31	903

Table 1.3 Environment Conservation Committee

Sr. No.	Name of Teacher	Designation	Post
1	Dr. Y.R. Kharde	Principal	Chairman
2	Dr. M. K. Bhosale	Assistant Professor	Coordinator
3	Prof. M.G. Kale	Assistant Professor	Member
4	Prof. A.R. Gawali	Assistant Professor	Member
5	Prof. K.S. Bhole	Assistant Professor	Member
6	Prof. S. V. Chitale	Assistant Professor	Member

Table 1.4 Key facts about the site

Name of the Institute	Shri Chhatrapati Shivaji Maharaj College of Engineering
Address	Survey No. 162 and 163, Nagar-Kalyan Road, Nepti, Ahmednagar (MH) - 414005
Campus Area	22 acres
Build up area	6500 sq.mts
Average Annual Rainfall	621 mm
Water Source	MIDC Supplies Water
Waste Treatment System	Septic Tanks
Average daily water consumption	~ 31.06KL
Average daily water supply	~ 15 Units
Average daily waste water	~ 28.70KL

Table 1.5 Auditors for green audit

Sr.No.	Name of Auditor	Designation
1	Mr. Sujitkumar Pote	Environmental Engineer, Sarvashree Technogreen Private Limited, Ahmednagar
2	Mr. Lokesh Jawale	Civil Engineer, Sarvashree Technogreen Private Limited, Ahmednagar

2. OBJECTIVES OF THE STUDY

The main objective of the green audit is to promote the Environment Management and Conservation in the Campus. The purpose of the audit is to identify, quantify, describe and prioritize framework of Environment Sustainability in compliance with the applicable regulations, policies and standards. The main objectives of carrying out **Green Audit** are:

1. To introduce and make students aware of real concerns of environment and its sustainability.
2. To secure the environment and cut down the threats posed to human health by analyzing the pattern and extent of resource use on the campus.
3. To establish a baseline data to assess future sustainability by avoiding the interruptions in environment that are more difficult to handle and their corrections require high cost.
4. To bring out a status report on environmental compliance.
5. Try to follow the guidelines given in past audit
6. To examine the current practices which can impact on environment such as of resource utilization, waste management etc.
7. To identify and analyze significant environmental issues.
8. Setup goal, vision and mission for practices in campus.
9. Establish and implement Energy and Environmental Management in various departments.
10. Continuous assessment for betterment in performance in green practices and its evaluation.
11. To prepare an Energy & Environmental Statement Report on practices followed by different departments, support services and administration building.

In order to perform Green, Environment and Energy audit, the methodology included different tools such as preparation of questionnaire, physical inspection of the campus, observation and review of the documentation, interviewing key persons and data analysis, measurements and recommendations. The study covered the following areas to summarize the present status of environment management in the campus:

3. METHODOLOGY

Key components of water source and assessment report with water audit conducted at **Shri Chhatrapati Shivaji Maharaj College of Engineering, Ahmednagar** included:

i. Pre-audit planning

- a) Preliminary literature review of concepts and methodologies related to environmental audit.
- b) Discussion with the management staff on various systems installed in the campus.
- c) Awareness creation and interaction with the staff and student on the concept of water audit.
- d) Walk through the entire campus to understand the nature of water source, water use and waste management systems in the campus.

ii. Data collection

- a) Development of questionnaire format to identify all water using fixtures/ equipment and examine water use patterns for individual buildings in the campus.
- b) Collection of secondary data from compilation of water bills, collecting records of pumps, water quality analysis reports etc.
- c) Semi-structured interview with maintenance manager, technicians, plumber and housekeeping staff on current situation and the past trends in water consumption, waste management, waste generation etc.
- d) Detailed analysis of data collected include: calculation of energy consumption, analysis of latest electricity bill of the campus, Water consumption, Waste Generation and Greenery Management.

iii. Data Processing and analysis

The existing trends and patterns in water usage and waste generation and management is analyzed in this step from the data collected from the previous step.

iv. Audit Recommendations and reporting:

Based on the understanding from the water audit, recommendations are given to improve the existing environmental performance of the campus and are documented in a report format

In order to perform water audit, the methodology included different tools such as preparation of questionnaire, physical inspection of the campus, observation and review of the documentation, interviewing key persons and data analysis, measurements and recommendations. The study covered the

following areas to summarize the present status of environment management in the campus.

1. Water management

- i) Raw Water
- ii) Drinking Water
- iii) Laboratory Waste Water
- iv) Sewage Water
- v) Rain Strom Drain Water
- vi) STP/ETP

2. Environment & Waste Management

3. Energy Management

4. Waste Management

- i) Hazardous Waste
- ii) Non- Biodegradable Solid Waste
- iii) Biodegradable Municipal Solid waste Bio- Medical Waste
- iv) Kitchen Waste
- v) E-waste management

4. WATER MANAGEMENT

Water is a valuable natural resource for all living organisms. It is freely available depending on the climate and topographic features of a region. Although water is natural freely available but portable (drinkable) water is not available freely for human consumption. In our planet 70% area is covered by water but only 3% of it is fresh water. Around 1.1 billion people of the world face water crisis. Water pollution and wastage plays a vital role in water crisis. Water contaminations are taking place at an alarming rate. Drinking or using contaminated water leads to many diseases or death. That is why it is important to ensure that drinking water is safe, clean and free from bacteria and disease. It is also important to conserve protect and manage the water resources availability and usage so that it is sustainably used. Our team examines the quality and usage of water in the campus. Water auditing is conducted for the evaluation of facilities of raw water intake and determining the facilities for water treatment and reuse. The concerned auditor investigates the relevant method that can be adopted and implemented to balance the demand and supply of water.

Sources of Water:

- Bore Wells
- MJP

Table 4.1 Water consumption in different activity in campus

Activity	Water used per activity (in Lit)	Average water used Person/Day	No. of people using water	Total water consumption per Day
Hand and face wash	4-6 L	16-24L	950	19000
Drinking Water	0.2-0.4L	1.2-2.4L	912	1459
Toilet Flush	8-10L	32-40L	890	17800

Table 4.2 Drinking water analysis report:

Sr. No.	Parameter	Result	Acceptable Limit as per IS 10500: 2012
<i>Organoleptic & Physical Parameters</i>			
1.	Colour	1	<i>Max. 5</i>
2.	Odour	Agreeable	Agreeable
3.	pH Value	8.2	6.5 to 8.5
4.	Turbidity	0.8	<i>Max. 1</i>
5.	Total Dissolved Solids	102	<i>Max. 500</i>
6.	Calcium (as Ca)	2.4	<i>Max. 75</i>
7.	Chloride (as Cl)	9.2	<i>Max.250</i>
8.	Fluoride (as F)	0.8	<i>Max. 1</i>
9.	Iron (as Fe)	BDL(DL:0.06)	<i>Max.0.3</i>
10.	Magnesium (as Mg)	0.94	<i>Max. 30</i>
11.	Nitrate (as NO ₃)	2.5	<i>Max.45</i>
12.	Sulphate (as SO ₄)	5.3	<i>Max. 200</i>
13.	Total Alkalinity (as CaCO ₃)	45	<i>Max.200</i>
14.	Total Hardness (as CaCO ₃)	24	<i>Max. 200</i>
<i>Bacteriological Analysis</i>			
15.	<i>E.coli</i>	Absent	Not Detectable
16.	Total Coliforms	Absent	Not Detectable

5. ENVIRONMENTAL MONITORING

Environmental Awareness Course (EVS): Environmental Studies Courses (Audit Course-I and Audit Course-II) introduced by Savitribai Phule Pune University, Pune for first year students for all faculties. Under this course students learn to be environmental friendly. They are made aware of

- 1) Renewable and Non-renewable energy sources
- 2) Energy conservation.

5.1 Air Monitoring:

Air quality in the academic institute is very important for health of the students, faculty and staff of the institute. The air pollution sources in the campus are wind storm, pollen grains, natural dust, vehicular emissions, generators, fires and laboratory fumes etc.

5.2 Noise Environment:

The noise levels measurements were carried out using Noise level meter. The noise level survey was carried out at seven locations, at outside as well inside the study area. The Noise levels monitored in the campus as well as inside the classroom and found the noise level within the permissible limit.

Sr.No	Location	Minimum Reading In dB	Maximum Reading In dB	Limits
1.	Near Main Gate	27.4	27.7	75
2.	Near Back Gate	28.0	28.1	75
3.	Inside Class room	27.7	28.5	75
4.	Outside Classroom	28.5	28.5	75
5.	Inside Library	28.2	28.5	75
6.	Inside lab	28.4	28.7	75
7.	Garden	27.5	27.7	75

5.3 Ventilation Study:

Sr.No	Location	Reading In m/s	Limits
1.	Inside Class room	1.2	>0.5
2.	Inside Library	1.2	>0.5
3.	Inside Engg lab	0.9	>0.5
4.	Inside Workshop	1.3	>0.5

5.4 Illumination Study:

The Illumination measurements were carried out using Luxmeter at five locations inside the study area and light intensity found adequate in monitored area.

Sr.No	Location	Reading In Lux	Limits
1.	Inside Class room	240	>100
2.	Inside Library	250	>100
3.	Inside Engg lab	210	>100
4.	Workshop Premises	310	>100

6. ENERGY USE AND CONSERVATION

This indicator addresses energy consumption, energy sources, energy monitoring, lighting, appliance, natural gas and vehicles. Energy use is clearly an important aspect of campus sustainability and thus requires no explanation for its inclusion in the assessment.

a) Observations

Energy source utilized by all the departments and common facility center is electricity only. Campus has provided class rooms and laboratories with proper light and ventilation provision for energy conservation. Earth Leakage Circuit Breaker has been installed at various locations on the campus to prevent current leakage and protect other electrical installations. Campus has placed notice boards for employees and students to off the lights and fans whenever not needed also Conducted internal Energy Audit Regular maintenance of electrical appliances to save the energy consumption

Campus has used of Light Emitting Diode (LED) and Compact Fluorescent Lights (CFL) bulbs which have revolutionized energy-efficient lighting. Approximately 500 LED was counted during survey.

Equipment like Computers is used with power saving mode. The electricity was shut down after occupancy time as one of the practices for energy conservation. Non-conventional energy sources like Solar and wind energy was adopted for reducing dependency on conventional sources.

b) Recommendations

- i) Support renewable and carbon-neutral electricity options on any energy- purchasing consortium, with the aim of supplying all campus properties with electricity that can be attributed to renewable and carbon-neutral sources.
- ii) Appreciate that it is preferable to purchase electricity from a company that invests in new sources of renewable and carbon-neutral electricity.
- iii) More improvement is required to improve their campus lighting; if possible they can convert to solar lights.

7. WASTE GENERATION

This indicator addresses waste production and disposal of different wastes like paper, food, plastic, biodegradable waste, glass, dust etc. and recycling. Furthermore, solid waste often includes wasted material resources that could otherwise be channeled into better service through recycling, repair and reuse. Solid waste generation and management is a burning issue. Unscientific handling of solid waste can create threats to everyone. The survey focused on volume, type and current management practice of solid waste generated in the campus.

a) Observations

The total solid waste collected in the campus is 8.5 kg/day. Waste generated from dead organic matter is a major solid waste in the campus. The waste is segregated at source by providing separate dustbins for Bio-degradable and Non Bio-degradable waste. Segregation of chemical waste generated in laboratories is also practiced.

Single sided used papers are reused for writing and printing in all departments. Important and confidential reports/ papers are sent for recycling after completion of their preservation period. Very less plastic waste (2 kg/day) is generated by some departments, office, garden etc. but it is neither categorized at point source nor sent for recycling. Metal waste and wooden waste is stored and given to authorized scrap agents for further processing. The tree droppings are sent for composting plant.

Table No.7.1 Category wise solid waste generated (kg/year)

Sr.No	Section	Category of waste(kg)		Total Solid Waste(kg)	Description(Level of waste high/medium/low)
		Dry waste	Wet Waste		
1	Main Building	2500	0	2500	low
2	Canteen	300	150	450	low
				2950 kg/year	

Vermicomposting Project

Vermicompost is produced from the garden waste and plant matter which are scattered in the campus. This compost is used as manure for plants. The Vermicompost is able to fulfil the need of fertilizers. This Vermi compost project is very useful for the college garden.



Vermicomposting Plant

b) Recommendations

- i) Reduce the absolute amount of Organic waste that is produced from campus.
- j) Make full use of all recycling facilities provided by private suppliers including glass, cans, white coloured and brown paper, plastic bottles, batteries, print cartridges, cardboard and furniture.
- k) Provide sufficient, accessible and well-publicized collection points for recyclable waste, with responsibility for recycling clearly allocated.
- l) Develop biogas plant to recycle biodegradable waste.

8. GREEN BELT AREA & BIO-DIVERSITY

The Green Belt Area is meant for conservation of nature and aesthetic value of the campus. The Green Area in the college includes the plants, greenery and sustainability of the campus to ensure that the buildings conform to green standards This also helps in ensuring that the Environmental Policy is enacted, enforced and reviewed using various environmental awareness programs.

Cultivated Organic Vegetables and Grain in Garden

List the species planted by the students			
Sr. No	Common Name	Botanical Name	No of Plants
1	Mango	<i>Mangifera indica</i> L.	45
2	Nandurk	<i>Toona ciliata</i>	26
3	Neem	<i>Azadirachta indica</i> A.Jass.	95
4	Pomegranate	<i>Punica granatum</i>	10
5	Palm tree	<i>Cocus nucifera</i>	25
6	Pimpal	<i>Ficus religiosa</i>	09
7	Saptarni	<i>Alstonia scholaris</i>	12
8	Ashoka	<i>Polyalthia longifolia</i> Sonn.	10
9	Bamboo	<i>Bambusoideae</i>	45
10	Badam	<i>Prunus dulsis</i>	35
11	Cherry	<i>Prunus avium</i>	12
12	Gulab	<i>Rosa hybrid</i> L.	30
13	Gulmohar	<i>Royal Poinciana</i>	55
14	Kashid	<i>Peltophorum pterocprum</i>	35
15	Bottle plam	Hyophorbe lagenicaulis	30
16	Chapha (Red)	Plumeria(Red)	25
17	Nilmohar	Peltophorum pterocarpum	12
18	Coconut	Cocos Nucifera	15
19	Jambhul	Syzygium cumini	65

20	Faycus	<i>Ficus benjamina</i>	42
21	Chapha (White)	Plumeria	15
22	Kaner	<i>Yellow oleander</i>	94
23	Jaswand	Hibiscus	20
24	Mogara	Jasminum sambac	20
25	Sadafuli	Catharanthus roseus	35
26	Pear tree	Pyrus	30
27	Lemon	Citrus limon	10
28	Plane tree	Platanus	25
29	Foxtail plam	<i>Foxtail plam</i>	18
30	Laxmitaru	Simarouba glauca	25
31	Karanj	Millettia pinnata	60
32	Bakul	Mimusops elengi	12
33	Areka plam	Areka plam	12
34	cycas	cycas	05
35	Banyan Tree	Ficus benghalensis	20
36	Chinch	Tamarindus indica	42
37	Aamlpat	Cassia fistula	12
38	Shisav	Dalbergia sissoo	30
39	Chikoo	Manilkara Zapota	65
40	Custard Apple	Annona squamosa	32
41	River Tamarind	Leucaena leucocephala	15
Total			1230

Green Practices in the Campus:



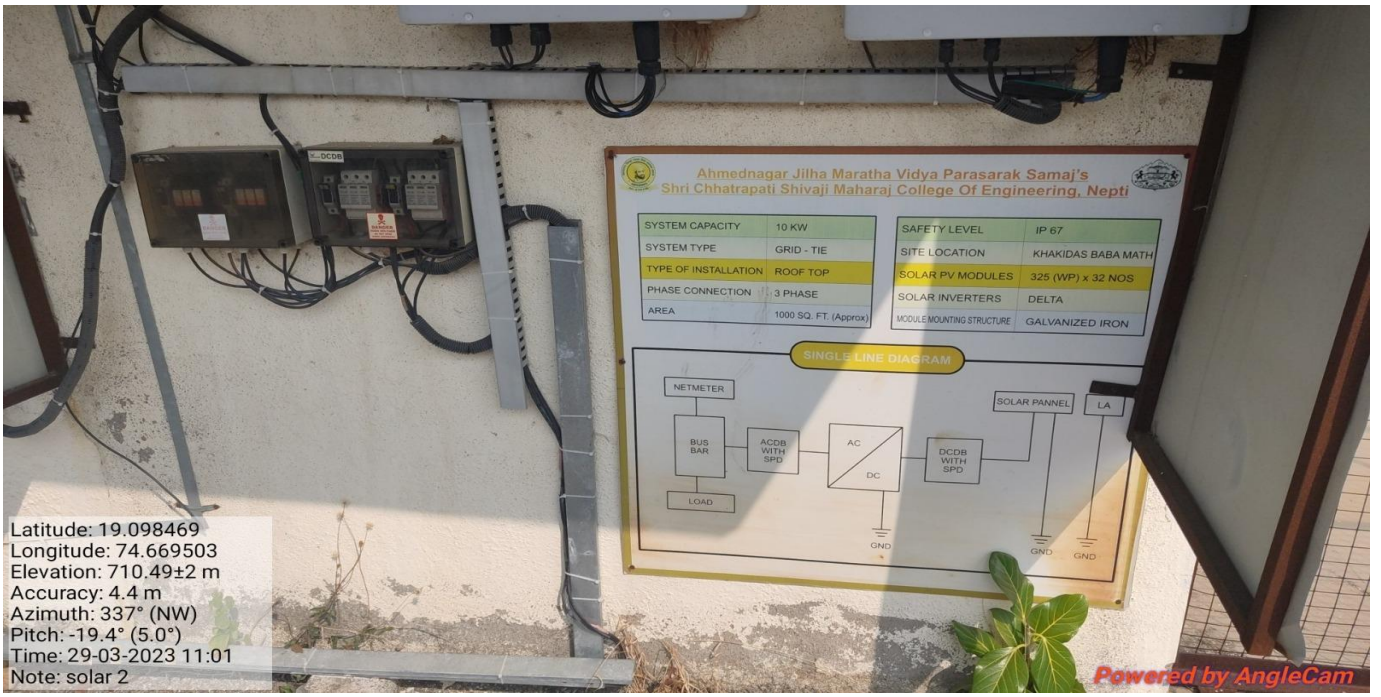
Ground Water Recharge Pit





Latitude: 19.098162
 Longitude: 74.669576
 Elevation: 711.89±14 m
 Accuracy: 4.0 m
 Azimuth: 356° (N)
 Pitch: -12.4° (6.6°)
 Time: 29-03-2023 10:57
 Note: solar 3

Powered by AngleCam



Ahmednagar Jilha Maratha Vidya Parasarak Samaj's Shri Chhatrapati Shivaji Maharaj College Of Engineering, Nepti			
SYSTEM CAPACITY	10 KW	SAFETY LEVEL	IP 67
SYSTEM TYPE	GRID - TIE	SITE LOCATION	KHAKIDAS BABA MATH
TYPE OF INSTALLATION	ROOF TOP	SOLAR PV MODULES	325 (WP) x 32 NOS
PHASE CONNECTION	3 PHASE	SOLAR INVERTERS	DELTA
AREA	1000 SQ. FT. (Approx)	MODULE MOUNTING STRUCTURE	GALVANIZED IRON

SINGLE LINE DIAGRAM

```

  graph TD
    Netmeter[NETMETER] --- BusBar[BUS BAR]
    BusBar --- ACDB[ACDB WITH SPD]
    ACDB --- ACDC[AC/DC]
    ACDC --- DCDB[DCDB WITH SPD]
    DCDB --- SolarPanel[SOLAR PANNEL]
    SolarPanel --- LA[LA]
    BusBar --- Load[LOAD]
    ACDB --- GND1[GND]
    ACDC --- GND2[GND]
    DCDB --- GND3[GND]
    LA --- GND4[GND]
  
```

Latitude: 19.098469
 Longitude: 74.669503
 Elevation: 710.49±2 m
 Accuracy: 4.4 m
 Azimuth: 337° (NW)
 Pitch: -19.4° (5.0°)
 Time: 29-03-2023 11:01
 Note: solar 2

Powered by AngleCam



Latitude: 19.097902
Longitude: 74.669688
Elevation: 711.99±2 m
Accuracy: 3.0 m
Azimuth: 285° (W)
Pitch: -17.7° (10.8°)
Time: 06-01-2023 16:12
Note: vermi compost 1

Powered by AngleCam



Latitude: 19.09789
Longitude: 74.669615
Elevation: 711.99±13 m
Accuracy: 9.9 m
Azimuth: 181° (S)
Pitch: -34.7° (2.5°)
Time: 06-01-2023 16:13
Note: vermi compost 3

Powered by AngleCam

9. RECOMMENDATIONS

The Management of Campus may consider on top priority that:-

- The Green Belt is to be developed as per the guidelines of NGT
- The Biodiversity is to be maintained while considering the plantation in future.
- The selection of trees species to be based on environmental conservation and carbon sequestration value.
- To establish and implement the Water Conservation and Management Plan as per Environment Protection Act 1986
- Composting of bio degradable waste to be scientifically done
- Artificial nests and water ponds are recommended to attract different birds in their migrating and breeding season.
- Plant survival rate is to be maintained.
- Watering schedule to be planned according the season.
- Drip irrigation is strongly recommended to conserve the water.
- Reuse of the water shall be done instead of use of fresh water.
- Waste water management still needs to be practiced and designed in the campus
- Rain Water Harvesting as per the guidelines of Central Ground Water Board shall be done
- Lab waste water quantity is not measured.



SARVASHREE TECHNOGREEN PVT LTD
Environmental and Agricultural
Engineering Consultancy Services

Branch 1: Survey No. 52/1, Plot No.16, Link Road, Bhushannagar,
Kedgaon, Ahmednagar - 414005. **M:** +91 7020756278
Branch 2: Flat No. 203, B3, Vansaaz Apartment, Be.Singapore Garden Bungalows,
Tapovan Road, Nashik - 422001. **M:** +91 9420643007
E: director@sstechnogreen.in, **W:** www.sstechnogreen.in
ISO 9001 | ISO 14001 | ISO 45001 | FSSAI

GSTIN: 27ABECS0697R1ZG

AUDIT CERTIFICATE

This is to certify that a **“Green Audit”** for **Shri Chhatrapati Shivaji Maharaj College of Engineering, Nepti, Ahmednagar** has been conducted for **2022-2023** to assess the green initiatives planning and efforts practiced in college campus like Green Campus Management, Plantations, Waste Management, Rain Water Harvesting, Conservation of Energy for maintenance of eco-friendly campus.

Place: Ahmednagar

Date: 20th May 2023

Susheel Pote
Director



Anil Dube
Certified Energy Auditor
EA-4973