

GREEN AUDIT REPORT

of

Shri Wagheshwar Gramvikas Pratishthan's,
LOKNETE SHRI DADA PATIL PHARATE
COLLEGE OF PHARMACY,
Mandavgan Pharata, Taluka: Shirur, District: Pune



Year: 2022-23

Prepared by

ENGRESS SERVICES

Yashashree, 26, Nirmal Bag Society
Near Mukhtangan English School, Parvati, Pune 411009
Phone: 09890444795 Email: engress123@gmail.com

REGISTRATION CERTIFICATES

MAHARASHTRA ENERGY DEVELOPMENT AGENCY

Maharashtra Energy Development Agency
(Government of Maharashtra Institution)
Aundh Road, Opposite Spicer College Road, Near Commissionerate of Animal Husbandary,
Aundh, Pune, Maharashtra 411067
Ph No: 020-2500450
Email: eee@mahaurja.com, Web: www.mahaurja.com

ECN/2022-23/CR-43/1709 10th May, 2022

**CERTIFICATE OF REGISTRATION
FOR CLASS 'A'**

We hereby certify that, the firm having following particulars is registered with **MAHARASHTRA ENERGY DEVELOPMENT AGENCY (MEDA)** under given category as "Energy Planner & Energy Auditor" in Maharashtra for Energy Conservation Programme of MEDA.

Name and Address of the firm : M/s Engress Services
Yashshree, 26, Nirmal Bag Society,
Near Mukangan English School,
Parvati, Pune - 411 009.

Registration Category : Empanelled Consultant for Energy Conservation Programme for Class 'A'

Registration Number : MEDA/ECN/2022-23/Class A/EA-32.

- Energy Conservation Programme intends to identify areas where wasteful use of energy occurs and to evaluate the scope for Energy Conservation and take concrete steps to achieve the evaluated energy savings.
- MEDA reserves the right to visit at any time without giving prior information to verify quarterly activities performed by the firm and cancelling the registration, if the information is found incorrect.
- This empanelment is valid till 09th May, 2024 from the date of registration, to carry out energy audits under the Energy Conservation Programme
- The Director General, MEDA reserves the right to cancel the registration at any time without assigning any reasons thereof.

[Signature]
General Manager (EC)



MEDA REGISTRATION CERTIFICATE

Certificate of Registration

This is to Certify that
Quality Management System of

ENGRESS SERVICES
26, YASHASHREE, BLOCK 1, LOKMANYA NAGAR, NIRMAL BAUG SOC, PARVATI,
PUNE- 411009, MAHARASHTRA, INDIA

has been assessed and found to conform to the requirements of
ISO 9001:2015
for the following scope :

CONSULTANCY SERVICES FOR ENERGY AUDIT, GREEN AUDIT & ENVIRONMENTAL AUDIT
IN EDUCATIONAL INSTITUTIONS & SUBMISSION OF AUDIT CERTIFICATE AND REPORT.

Certificate No : **23EQKC13**
Initial Registration Date : 27/03/2023 Issuance Date : 27/03/2023
Date of Expiry : 26/03/2026
1st Surve. Due : 27/02/2024 2nd Surve. Due : 27/02/2025

[Signature]
Director

Magnitude Management Services Pvt. Ltd.
B-55, Lower Ground Floor, Sector 62, Noida-201301, U.P. India
e-mail: info@mmcertification.com, website: www.mmcertification.com
* Subject to successful surveillance audits and case verification results to be allowed to be certified, this certificate shall be suspended/withdrawn.
Certificate Verification: Please check the validity of certificate at <http://www.mmcertification.com> or www.mmcertification.com as a User Client

ISO: 9001-2015 Certificate

ASSOCHAM GEM CP CERTIFICATE

Certificate of Registration

This is to Certify that
Environmental Management System of

ENGRESS SERVICES
26, YASHASHREE, BLOCK 1, LOKMANYA NAGAR, NIRMAL BAUG SOC,
PARVATI, PUNE- 411009, MAHARASHTRA, INDIA

has been assessed and found to conform to the requirements of
ISO 14001:2015
for the following scope :

CONSULTANCY SERVICES FOR ENERGY AUDIT, GREEN AUDIT & ENVIRONMENTAL AUDIT
IN EDUCATIONAL INSTITUTIONS & SUBMISSION OF AUDIT CERTIFICATE AND REPORT.

Certificate No : **23EEKW20**
Initial Registration Date : 29/03/2023 Issuance Date : 29/03/2023
Date of Expiry : 28/03/2026
1st Surve. Due : 29/02/2024 2nd Surve. Due : 28/02/2025

[Signature]
Director

Magnitude Management Services Pvt. Ltd.
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ACKNOWLEDGEMENT

We Engress Services, Pune, express our sincere gratitude to the management of Shri Wagheshwar Gramvikas Pratishthan's Loknete Shri Dada Patil Pharate College Of Pharmacy, Mandavgan Pharate, Taluka: Shirur, District: Pune, for awarding us the assignment of Green Audit of their Mandavgan campus for the Year: 2022-23.

We are thankful to all staff members for helping us during the field study.

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EXECUTIVE SUMMARY

1. Shri Wagheshwar Gramvikas Pratishthan's Loknete Shri Dada Patil Pharate College Of Pharmacy, Mandavgan Pharate, Taluka: Shirur, District: Pune consumes Energy in the form of **Electrical Energy**; used for various gadgets, Office & other facilities.

2. Present Energy Consumption & CO₂ Emission:

No	Particulars	Value	Unit
1	Annual Energy Consumed	20675	kWh
2	Annual CO ₂ Emissions	18.61	MT

3. Renewable Energy & Reduction in CO₂ Emissions:

- Installation of Solar Thermal Water Heating System at Hostel.
- The College has yet to install Roof Top Solar PV Plant

4. Waste Management:

No	Head	Particulars
1	Solid Waste	Segregation of Waste at source
2	Sanitary Waste	Installed Sanitary Waste Incinerator
3	Chemical Fumes	Provision of a Fumigation Chamber
4	Liquid Waste	Provision of Septic Tank

5. Rain Water Management:

The College has installed Pipes from the terrace and the Rain water falling on the terrace is used to increase Underground Water Table.

6. Green & Sustainable Practices:

- Maintenance of good Internal Road
- Tree Plantation in the campus.
- Provision of Ramp for Divyangajan
- Creation of awareness on Swatch Bharat by Display of Posters

7. Assumption:

1. **1 kWh** of Electrical Energy releases **0.9 Kg of CO₂** into atmosphere

8. References:

- For CO₂ Emissions: www.tatapower.com

ABBREVIATIONS

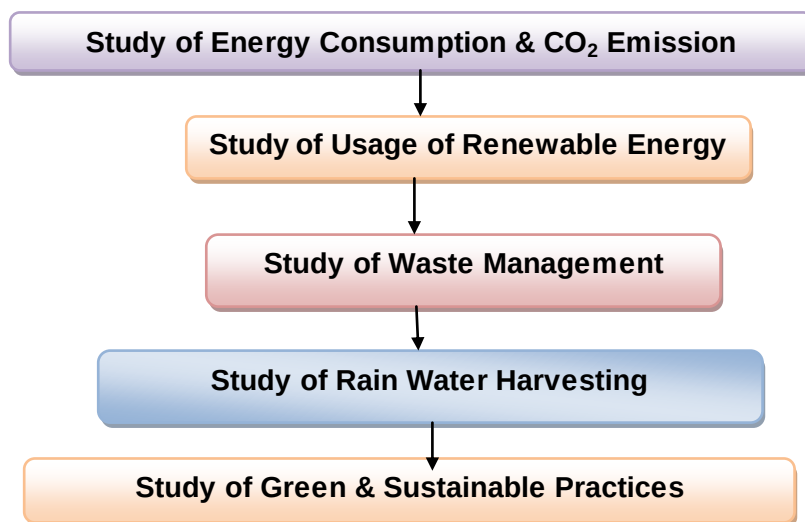
SWGP	:	Shri Wagheshwar Gramvikas Pratishthan
LED	:	Light Emitting Diode
kWh	:	kilo-Watt Hour
MT	:	Metric Ton
CO ₂	:	Carbon Di Oxide

CHAPTER-I INTRODUCTION

1.1 Introduction:

A Green Audit is conducted at Loknete Shri Dada Patil Pharate College of Pharmacy Mandavgan Pharate.

1.2 Audit Procedural Steps:



1.3 Google Earth Image:



College
Campus

CHAPTER-II

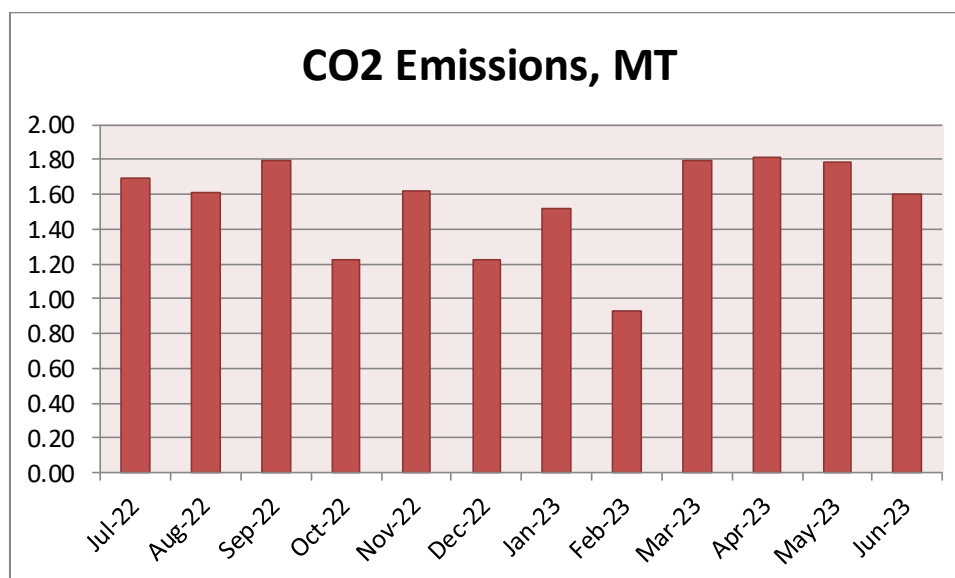
STUDY OF ENERGY CONSUMPTION & CO₂ EMISSION

A **Carbon Foot print** is defined as the Total Greenhouse Gas emissions, emitted due to various activities. **Basis for computation of CO₂ Emissions:** 1 kWh of Electrical Energy releases **0.9 Kg of CO₂** into atmosphere.

Table No 1: Month wise Energy Consumption & CO₂ Emissions:

No	Month	Energy Consumed, kWh	CO ₂ Emissions, MT
1	Jul-22	1880	1.69
2	Aug-22	1785	1.61
3	Sep-22	1990	1.79
4	Oct-22	1365	1.23
5	Nov-22	1798	1.62
6	Dec-22	1365	1.23
7	Jan-23	1689	1.52
8	Feb-23	1036	0.93
9	Mar-23	1997	1.80
10	Apr-23	2015	1.81
11	May-23	1980	1.78
12	Jun-23	1775	1.60
13	Total	20675	18.61
14	Maximum	2015	1.81
15	Minimum	1036	0.93
16	Average	1722.92	1.55

Chart No 1: Representation of Month wise CO₂ emissions:



CHAPTER-III

STUDY OF USAGE OF RENEWABLE ENERGY

The College has installed Solar Thermal Water Heating System at the Hostel Block

The College has yet to install Roof top Solar PV Plant.

Photograph of Roof Top Solar Thermal Water Heating System:

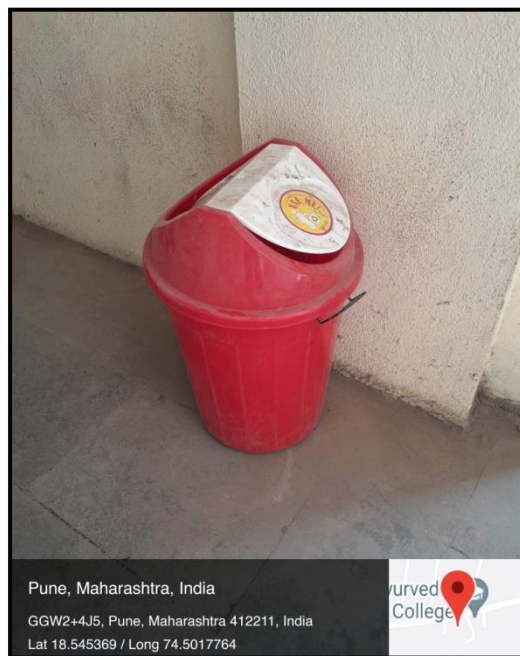


CHAPTER-IV STUDY OF WASTE MANAGEMENT

4.1 Segregation of Waste at Source:

The Waste is segregated at source. Waste bins are located at various locations

Photograph of Separate Waste Collection Bin:



4.2 Sanitary Waste Management:

The College has installed Sanitary Waste Incinerator, for disposal of Sanitary Waste.

Photograph of Sanitary Waste Incinerator:



4.3 Chemicals' Storage & Fumes' Management:

Hazardous chemicals are kept away from the reach of students in the fumigation Chamber.

Photograph of Fumigation Chamber:



4.4 Liquid Waste Management:

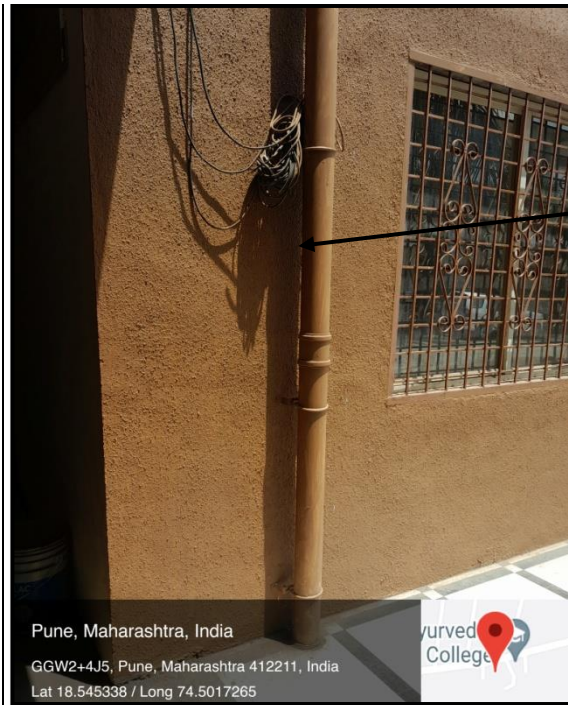
The College has a Septic Tank, for disposal of Liquid Waste and is cleaned periodically.

CHAPTER-V

STUDY OF RAIN WATER MANAGEMENT

The College has implemented the Rain Water Management Project. The College has installed Pipes from the terrace and the Rain water falling on the terrace is gathered and is used to increase the underground water table.

Photograph of Rain Water Carrying Pipe:



Rain Water
Carrying Pipe

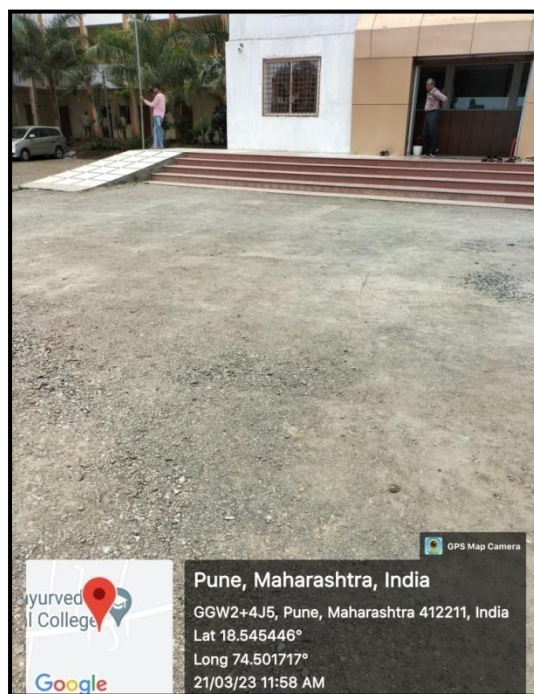
CHAPTER-VI

STUDY OF GREEN & SUSTAINABLE PRACTICES

6.1 Pedestrian Friendly Road:

The College has well maintained pedestrian road as to facilitate the easy movement of the students within the campus.

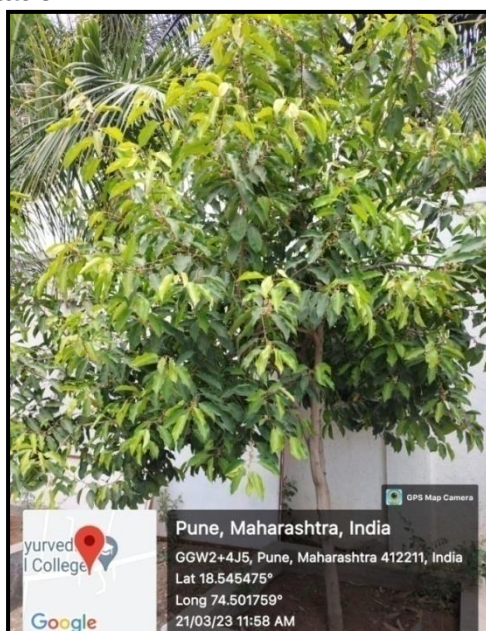
Photograph of Road within campus:



6.2 Internal Tree Plantation:

The College has well maintained Tree Plantation.

Photograph of Tree Plantation:



6.3 Provision of Ramp for Divyangajan:

The College has made provision of Ramp for the Divyangajan.

Photograph of Ramp for Divyangajan:



6.4 Creation of Awareness on Swachh Bharat by Display of Posters:

The College has displayed posters on Swachh Bharat.

Photograph of Poster Display Board on Swachh Bharat:



ANNEXURE**LIST OF TREES & PLANTS IN THE CAMPUS****1. List of Trees:**

No	Common Name of Tree
1	Royal Palm
2	Arica Palm
3	Queen palm
4	Rubber
5	Spanish Cherry
6	Saptaparni
7	Mango
8	Ficus
9	Champa
10	Swarnachampa
11	Nagchampa
12	Papaya
13	Chinese Thuja
14	English Chinch
15	Vad

1. List of Herbal Plants:

Sr. No.	Name Of the Plant	Sr. No.	Name Of the Plant
1.	Tulsi	2.	Hibiscus
3.	Anjir	4.	Lemaon Grass
5.	Pormogranate	6.	Bael
7.	Shatavari	8.	Ginger
9.	Amla	10.	Catechu
11.	Mint	12.	Gugul
13.	Chapha	14.	Almond
15.	Kadamba	16.	Sandalwood
17.	Karanj	18.	Lemon peel
19.	Dhatura	20.	Jambhul
21.	Rakhtarohida	22.	Chitrak
23.	Sagargota	24.	Vasaka
25.	Baheda	26.	Cactus
27.	Ashwagandha	28.	Nirgundi
29.	Baheda	30.	Umber
31.	Jasmin	32.	Neem
33.	Kulanjam	34.	Apta
35.	Rose	36.	Gulwel
37.	Papaya	38.	Jai

39.	Kokam	40.	Cinnamon
41.	Murudsheng	42.	Vinca
43.	Sitaphal	44.	Tetu
45.	Guava	46.	Mehendi
47.	Kandwel	48.	Sadaphuli
49.	Jasmin (Mogra)	50.	Biba
51.	Kadhipatta (Sweet Neem)	52.	Bhuiawala
53.	Chafa	54.	Gulvel
55.	Katekoranti	56.	Cassia
57.	Guggul	58.	Eucalyptus
59.	Ajwon (Owa)	60.	Lajalu