

GREEN AUDIT REPORT

Modern Education Society's,
WADIA COLLEGE OF ENGINEERING,
Off Bund Garden Road, Pune 411 001



Year: 2024-25

Prepared by:

ENGRESS SERVICES

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



Registration Certificates: UDYAM, MEDA, ASSOCHAM GEM-CP, ISO: 9001 & 14001:

UDYAM REGISTRATION CERTIFICATE

UDYAM REGISTRATION NUMBER: UDYAM-MH-26-0135636

NAME OF ENTERPRISE: ENGRESS SERVICES

TYPE OF ENTERPRISE *

S.No.	Classification Year	Enterprise Type	Classification Date
1	2023-24	Micro	03/02/2024
2	2022-23	Micro	26/06/2022
3	2021-22	Micro	27/07/2021

MAJOR ACTIVITY: SERVICES

SOCIAL CATEGORY OF ENTREPRENEUR: GENERAL

NAME OF UNIT(S)

S.No.	Name of Unit(s)
1	Engress Services

OFFICIAL ADDRESS OF ENTERPRISE

Flat/Door/Block No.	Name of Premises/ Building	Village/Town	Block	City	State	District	Pin
26	Yashashree	Pune	1	Pune	MAHARASHTRA	PUNE	411009

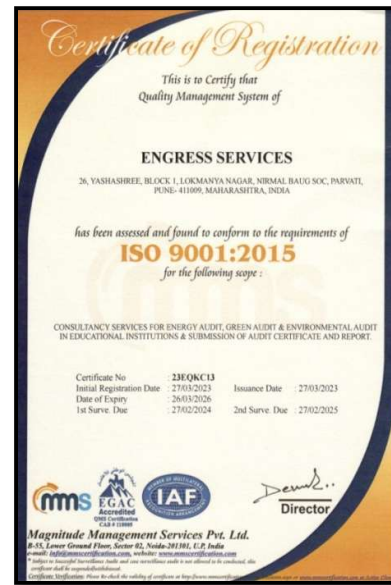
DATE OF INCORPORATION / REGISTRATION OF ENTERPRISE: 13/04/2021

DATE OF COMMENCEMENT OF PRODUCTION/BUSINESS: 13/04/2021

NATIONAL INDUSTRY CLASSIFICATION CODE(S)

S.No.	NIC 2 Digit	NIC 4 Digit	NIC 5 Digit	Activity
1	79	7920	79200	Services

DATE OF UDYAM REGISTRATION: 27/07/2021



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: 020-35000450
Email: eee@mahauria.com, Web: www.mahauria.com

ECN/2024-25/CR-02/389 8th October, 2024

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.

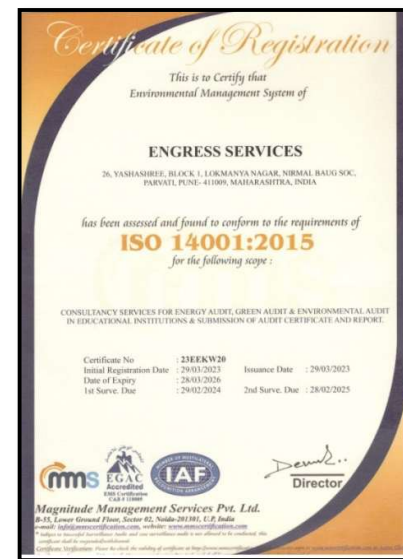
Name and Address of the firm : M/s Engress Services,
Yashashree, 26, Nirmal Bag Society,
Near Mukhtangan English School,
Parvati, Pune - 411 009.

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

Registration Number : MEDA/ECN/2024-25/Class A/EA-22

- 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 canceling the registration, if the information is found incorrect.
- This empanelment is valid till 7th October, 2026 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.

General Manager (FC)



INDEX

Sr. No	Particulars	Page No
I	Acknowledgement	4
II	Executive Summary	5
1	Introduction	7
2	Study of Energy Consumption & Renewable Energy	8
3	Study of Green Cover	10
4	Study of Waste Management	11
5	Study of Water Management	12
6	Initiatives on National Mission on Green India	13
7	Initiatives on Environment Conservation	14
8	Initiatives on Swachh Bharat Mission	15
8	Study of Facilities for Divyangajan	16

ACKNOWLEDGEMENT

We Engress Services, Pune, express our sincere gratitude to the management of Modern Education Society's, Wadia College of Engineering, Off Bund Garden Road, Pune 411 001 for awarding us the assignment of Green Audit of their Campus for the Year: 2024-25.

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

EXECUTIVE SUMMARY

1.A Green Audit is conducted at **Modern Education Society's, Wadia College of Engineering, Pune 411001**

2. Present Energy Consumption & CO₂ Emission:

No	Particulars	Value	Unit
1	Annual Energy Purchased	127337	kW
2	Annual CO ₂ Emissions	118.42	tCO ₂ e

3. Usage of Renewable Energy & Reduction in CO₂ Emissions:

No	Particulars	Value	Unit
1	Installed Capacity of Roof Top Solar PV Plant	8	kWp
2	Total Energy Generated by kWp Plant in 24-25	9600	kWh
3	Annual Reduction in CO ₂ Emissions in 24-25	8.93	tCO ₂ e

4. Study of Green Cover:

No	Particulars	Value	Unit
1	Total Green Cover Area	1824	m ²
2	Total Plot Area	5571	m ²
3	% of Green Cover to Total Plot Area	32.74	%

5. Study of Waste Management:

No	Head	Particulars
1	Solid Waste	Segregation of Waste at source
2	Food Waste	Provision of Bio Gas Plant
3	Organic Waste	Provision of Bio Composting Bed
4	E Waste	Disposed of through Authorized Agency

6. Study of Water Management:

6.1 Water Sources:

- 1.The Main source of Water is: Municipal Supply
- 2.Constructed Open Well

6.2 Rain Water Management:

The Rain Water falling on the terrace is run down through the Pipes and is used to increase the underground water table in a specially constructed open well.

7. Sustainable Living Practices:

No	Head	Particulars
1	Initiatives on National Mission for Green India	Internal Tree Plantation Conductance of Tree Plantation Drive
2	Initiatives on Environment Conservation/Awareness	Creation of Awareness on Energy Conservation by Display of Poster
3	Initiatives on Swatchh Bharat Abhiyan	Conductance of Cleanliness Drive
4	Facilities for Divyangajan	Provision of Ramp & Lift for Divyangajan

8. Assumptions:

1. Emission Fator of Electrical Energy: **0.93 Kg of CO₂ / kWh**
2. Energy generated by Roof Top Solar PV Plant: **4 kWh/kWp per Day**
3. Annual Solar Energy Generation Days: **300 Nos**
4. CO₂ Emissions are computed For **Scope- 2**
5. The Green Cover is calculated from Google Earth Image & value is indicative

9. Reference:

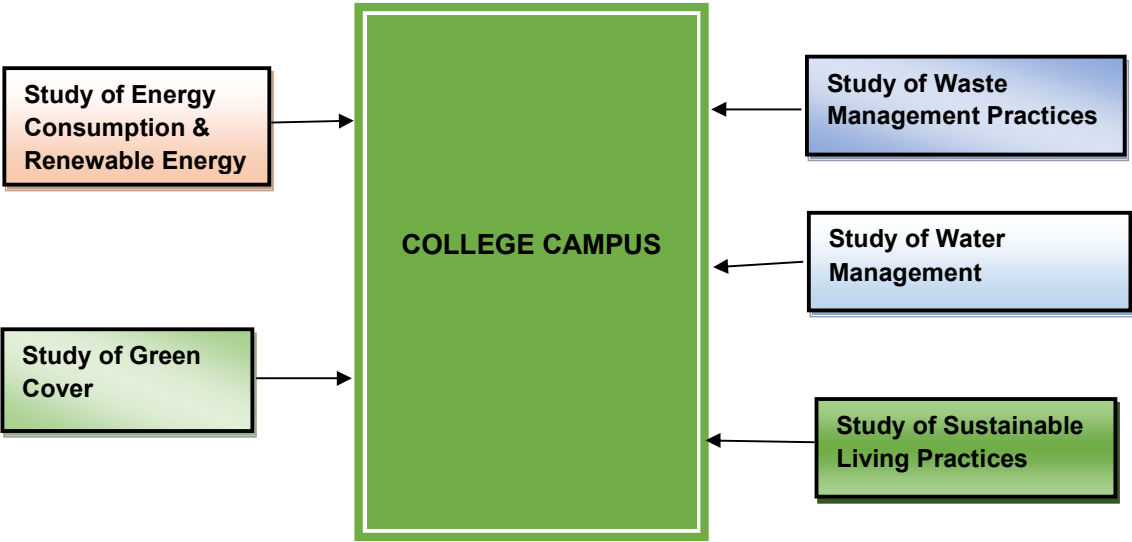
- For CO₂ Emissions: www.ccd.gujarat.gov.in
- For Solar Energy Generation: www.solarrooftop.gov.in

CHAPTER-I
INTRODUCTION

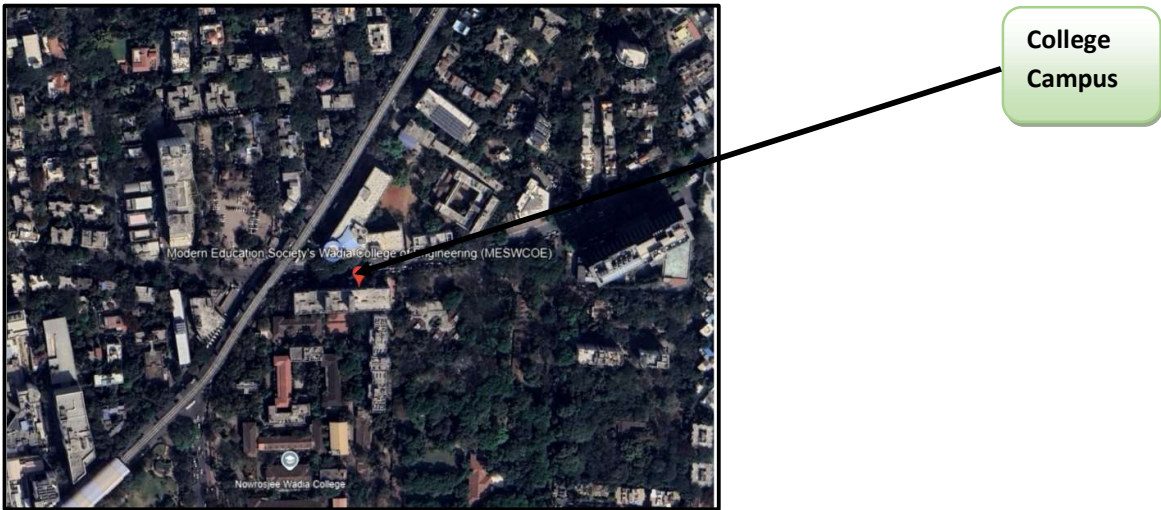
1.1 Introduction:

A Green Audit is conducted at Wadia College of Engineering, Pune 411001.

1.2 Key Study Points:



1.3 College Location Image:



CHAPTER-II

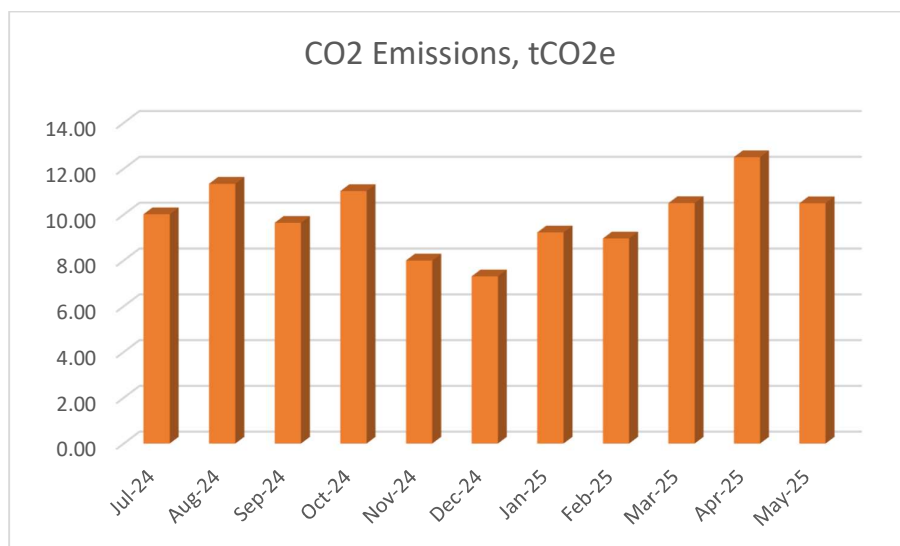
STUDY OF ENERGY CONSUMPTION & RENEWABLE ENERGY

In this Chapter, we present the Energy Consumption, CO₂ Emission and Usage of Renewable Energy. **A Carbon Foot print** is defined as the Total Greenhouse Gas emissions, emitted due to various activities. The CO₂ Emission is computed for **Scope-2**. **Emission Factor:** Emission Fator of Electricity: **1 kWh = 0.93 Kg of CO₂**

Table No 1: Month wise CO₂ Emissions: For Scope-2:

No	Month	Energy Purchased, kWh	CO ₂ Emissions, tCO ₂ e
1	Jul-24	10768	10.01
2	Aug-24	12200	11.35
3	Sep-24	10370	9.64
4	Oct-24	11857	11.03
5	Nov-24	8600	8.00
6	Dec-24	7857	7.31
7	Jan-25	9915	9.22
8	Feb-25	9633	8.96
9	Mar-25	11291	10.50
10	Apr-25	13447	12.51
11	May-25	11284	10.49
12	Jun-25	10115	9.41
13	Total	127337	118.42

Chart No 1: Month wise CO₂ Emissions:



2.2 Study of Usage of Renewable Energy & Reduction in CO₂ Emission:

The Institute has installed Roof Top Solar PV Plant of Capacity **108.82 kWp**
In the following Table, we present the reduction in CO₂ emissions due to Solar Energy:

Table No 2: Computation of Reduction in CO₂ Emissions:

No	Particulars	Value	Unit
1	Installed Capacity of Roof Top Solar PV Plant Capacity	8	kWp
2	Energy Generated in the Year: 24-25	9600	KWh
3	1 kWh of Electrical Energy saves	0.93	Kg/kWh
4	Qty of CO ₂ Saved by Solar PV Plant = (2) *(3) /1000	8.93	MT of CO ₂

Photograph of Roof Top Solar PV Plant:



CHAPTER III

STUDY OF GREEN COVER

In this Chapter, we present the **Green Cover** of the Total Campus.

Green Cover of an Institution is the Ratio of Area covered by Trees to Total Plot Area. To compute the Green Cover, we use the Goole Earth Image of the Campus. The Area calculated is approximate.

Schematic of Green Cover:

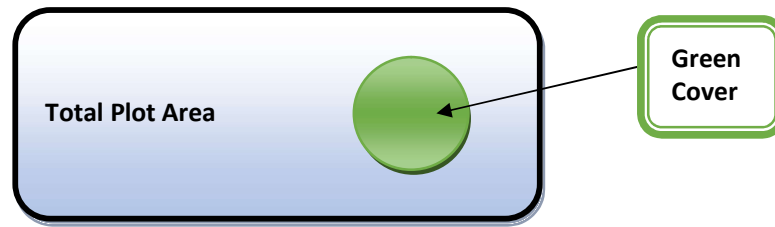


Table No 3: Computation of Green Cover:

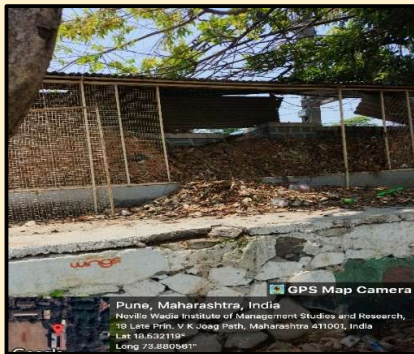
No	Particulars	Value	Unit
1	Total Green Cover Area	1824	m ²
2	Total Plot Area	5571	m ²
3	% of Green Cover to Total Plot Area	32.74	%

CHAPTER IV

STUDY OF WASTE MANAGEMENT

In this Chapter, we present the Waste Management Practices, followed by the College.

Details of Waste Management Practices:

No	Head	Observation	Photograph
1	Solid Waste	Segregation of Waste at Source: Provision of Waste Collection Bins	Waste Collection Bin:  Pune, MH, India Wadia College Area, Pune, 411001, MH, India Lat 18.534533, Long 73.880374 08/26/2024 11:42 AM GMT+05:30 Note: Captured by GPS Map Camera
2	Food Waste	Provision of Bio Gas Plant	Bio Gas Plant  Pune, Maharashtra, India Sangamvadi, NOWROSJEE WADIA COLLEGE, Sangamvadi, Pune, Maharashtra 411001, India Lat 18.534533 / Long 73.880374
3	Organic Waste	Provision of Bio Composting Bed	Bio Composting Bed  Pune, Maharashtra, India Neville Wadia Institute of Management Studies and Research, 19 Late Prin. V K Joag Path, Maharashtra 411001, India Lat 18.534533, Long 73.880374
4	E Waste	Disposal of E Waste through Authorized Agency	

CHAPTER-V

STUDY OF WATER MANAGEMENT

5.1 Study of Water Sources:

The Main source of Water is:

- Municipal Supply
- Constructed Well

5.2 Study of Rain Water Management:

The Rain Water falling on the terrace is run down through the Pipes and is used to increase the underground water table in a specially constructed open well.

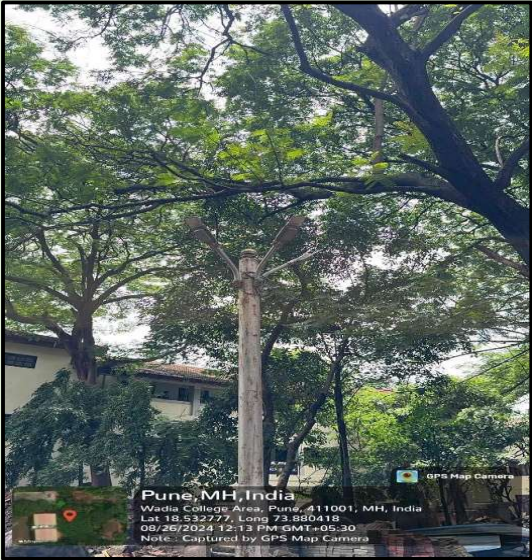
Photograph of Rain Water Collecting Pipe:



Open Well for Rain
Water Collection

CHAPTER-VI
INITIATIVES ON NATIONAL MISSION FOR GREEN INDIA

Initiatives on National Mission on Green India:

No	Head	Action Taken	Photograph
1	Initiatives on National Mission for Green India	Internal Tree Plantation in the College Campus	Internal Tree Plantation: 
		2. Conductance of Tree Plantation Drive	Tree Plantation Drive: 

CHAPTER-VII
INITIATIVES ON ENVIRONMENT CONSERVATION

Initiatives on Environment Conservation/Awareness:

No	Head	Action Taken	Photograph
1	Initiatives on Environment Conservation & Awareness	Creation of Awareness on Energy Conservation by Display Of Poster	Poster on Energy Conservation 

CHAPTER-VIII
INITIATIVES ON SWACHH BHARAT MISSION

Initiatives on Swachh Bharat Mission:

No	Head	Action Taken	Photograph
1	Initiatives on Swachh Bharat Mission	Conductance of Cleanliness Drive in the Campus	Program on Cleanliness Drive: 

CHAPTER-IX
STUDY OF FACILITIES FOR DIVYANGAJAN

Facilities for Divyangajan:

No	Head	Action Taken	Photograph
1	Facilities for Divyangajan	1 Provision of Ramp for Divyangajan	Ramp: 
		2 Provision of Lift for Divyangajan	Lift: 