



Shri Wagheshwar Gramvikas Pratishtan's

Shri Vasantao Pharate-Patil Arts, Commerce and Science College

Mandavgan Pharata Tal: Shirur, Dist: Pune, Pincode: 412211.

Affiliated to Savitribai Phule Pune University, Pune (ID No PU/PN/AC/392/2009)

AISHE Code: C-41832 Unipune ID: CAAP014910 Tel.No-(02137) 262222

Website-www.svppcollege.com E-Mail-acscollege09@gmail.com

6.5.2: Quality assurance initiatives of the institution include:

1. Regular meeting of Internal Quality Assurance Cell (IQAC);
Quality improvement initiatives identified and implemented
2. Academic and Administrative Audit (AAA) and follow-up action taken
3. Collaborative quality initiatives with other institution(s)
4. Participation in NIRF and other recognized rankings
5. Any other quality audit/accreditation recognized by state, national
Or international agencies such as NAAC, NBA etc.

A. Any 4 or more of the above

B. Any 3 of the above

C. Any 2 of the above

D. Any 1 of the above

E. None of the above

Sr.No	List of Quality Assurance Initiatives
1	Regular Meetings of IQAC
2	Academic and Administrative Audit (AAA) and follow-up action taken
3	Collaborative quality initiatives with other institution(s) (MOU)
4	ISO Certification



Savitribai Phule Pune University
(Formerly University of Pune)
Academic Summary Report
For Academic Year 2021-2022

College Details

Name of the Institute / College	Shri Wagheshwar Gramvikas Pratishthan Shri Vasantao Pharate-Patil Arts Commerce and Science College Addr: Mandavgan Pharata Tal: Shirur Dist: Pune Pincode: 412211
Year of Establishment	2009
Faculty	
Student's Strength	7716
Faculty Strength	38
Administrative / Supportive Staff	6
Accrediation Status (Agency)	

Summary of Assessment

Satisfactory Performance in the following areas

Teaching Learning	
Sr. No.	Parameters
1	Time Tables
2	Average percentage of syllabus completed across all courses and all semesters
3	Course Plans (Teaching Plan)
Concurrent Assessment	
Sr. No.	Parameters
1	Rubrics
Statutory committes and compliances	
Sr. No.	Parameters
1	Number of full time teachers appointed (date of visit) as an % of requirement as per the APEX authority requirement
2	Anti ragging committee
Quantitative Auto Grading	
Sr. No.	Parameters
1	Admission
2	Result
3	Salary

Improvement is required in the following areas

Teaching Learning	
Sr. No.	Parameters
1	Academic Calendar
2	Choice of Electives
3	Average percentage of sessions conducted vis a vis planned number of sessions across courses and semesters
4	Variety of Pedagogical Approaches across courses and semesters





Savitribai Phule Pune University
(Formerly University of Pune)
Academic Summary Report
For Academic Year 2021-2022

5	Customised Self Learning Material across courses and semesters
Concurrent Assessment	
Sr. No.	Parameters
1	Concurrent Assessment Calendar
2	Number of Concurrent Assessment Methods per course
3	Concurrent Assessment Answer Key
4	Result Analysis
5	Answer Scripts shared with Learners
Outcomes Based Education	
Sr. No.	Parameters
1	Learning outcomes communicated to staff, students, and external examiners
2	CO Coverage in Concurrent Assessment
3	Weak Learners
4	Bright Learners
5	Curriculum Gaps
6	Opportunities for Self Learning
Feedback	
Sr. No.	Parameters
1	Student Feedback
2	Course Teacher feedback
3	Recruiter Feedback
4	Internal / External Peer Review of Course Teachers
Student Holistic Development	
Sr. No.	Parameters
1	Project based Learning across all courses and all semesters
2	Technology Assisted learning across all courses and all semesters
3	Peer Learning across all courses and all semesters
4	Research Based Learning across all courses and all semesters
Statutory committees and compliances	
Sr. No.	Parameters
1	No of Regular & approved teachers (against total required)
2	College Development Committee
3	Grievance Cell (students)
4	Women Anti Sexual Harassment Cell
5	IQAC





Savitribai Phule Pune University
(Formerly University of Pune)
Academic Summary Report
For Academic Year 2021-2022

Quantitative Auto Grading	
Sr. No.	Parameters
1	Activities
2	University Dues
Immediate action /Improvement is required in the following areas	
Teaching Learning	
Sr. No.	Parameters
1	Number of Value Added Modules Offered across courses and semesters
2	MOOCs Offered across courses and semesters
Concurrent Assessment	
Sr. No.	Parameters
1	External Paper Setters involved in Term End Internal Exam
2	External Evaluators involved in Term End Internal Exam
3	Number of Courses for which Moderation of Concurrent Assessment carried out
4	Bridge / Remedial / Foundation Courses Offered across all semesters
Outcomes Based Education	
Sr. No.	Parameters
1	Blooms Taxonomy Based Concurrent Assessment
2	Course Outcomes Attainment
3	Course Exit Survey
4	Continuous Improvement
Feedback	
Sr. No.	Parameters
1	Curriculum Benchmarking
Statutory committes and compliances	
Sr. No.	Parameters
1	Principal / Director
2	No of Adhoc and CHB approved teachers for the past academic year (against total required)
3	Librarian
Student Holistic Development	
Sr. No.	Parameters
1	Professional Society Activities across all courses and all semesters
Quantitative Auto Grading	
Sr. No.	Parameters
1	Placement
2	Payscale



01710000000000000000



Savitribai Phule Pune University
(Formerly University of Pune)
Academic Summary Report
For Academic Year 2021-2022



DCI
Principal/Director
PRINCIPAL

SHRI VASANTRAO PHARATE-PATIL MAHAVIDYALAYA
MANDAVGAN PHARATA, TAL. SHIRUR, DIST. PUNE 412211

K. Kakasaheb
30/12/2022
Mohite Kakasaheb
Chandrakant
Charirman
Sign

Chobhe Ravindra Maruti
30-12-22
Member
sign

Chobhe Ravindra Maruti

Sawant Sanjay Dinkar
30/12/22
Member
sign

Sawant Sanjay Dinkar

ENVIRONMENTAL AUDIT REPORT

Of

Shri Wagheshwar Gramvikas Pratishthan's,
Shri Vasantao Pharate Patil Arts, Commerce & Science College,
Mandavgan Pharata, Taluka: Shirur, District: Pune



Year: 2019-20

Prepared by

ENRICH CONSULTANTS

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

MAHARASHTRA ENERGY DEVELOPMENT AGENCY



Maharashtra Energy Development Agency

(A Government of Maharashtra undertaking)

2nd Floor, MHADA Commercial Complex, Opp. Tridal Nagar, Yerwada, Pune 411 006,
Ph No: 020-26614393/266144403

Email: eee@mahaurja.com, Web: www.mahaurja.com

ECN/2018-19/CR-05/4174

19th September , 2018

**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 : **Enrich Consultants**
Yashashree, Plot No. 26, Nirmal Bag Society,
Near Muktagan English School,
Parvati, Pune - 411009.

Registration Category : Empanelled *Consultant for Energy Conservation Programme*

Registration Number : **MEDA/ECN/CR-05/2018-19/EA-03**

- 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 the firm at any time without giving any prior information and canceling the registration, if the information is found incorrect.
- This empanelment is valid till **31st March 2021** 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.


(Smita Kudarikar)
General Manager (EC)

Enrich Consultants

Yashashree, 26, Nirmal Bag Society,
Near Mukhtangan English School, Parvati, Pune 411 009
Tel: 09890444795 Email: enrichcons@gmail.com

Ref: EC/ SVPPACSC/19-20/03

Date: 22/8/2020

CERTIFICATE

This is to certify that we have conducted Environmental Audit at Shri Wagheshwar Gramvikas Pratishthan's Shri Vasantao Pharate Patil Arts, Commerce & Science College, Mandavgan Pharate, Taluka: Shirur, District: Pune in the year 2019-20.

The College has adopted Environment Friendly Practices:

- Usage of Energy Efficient LED Fittings
- Solar Thermal Water Heating System at Hostel.
- Segregation of Waste at source
- Installation of Rain Water Management Project
- Tree Plantation in the campus

We appreciate the support of Management, involvement of faculty members and students in the process of Energy Conservation & making the campus Green.

For Enrich Consultants,

A Y Mehendale,
Certified Energy Auditor, EA-8192

INDEX

Sr. No	Particulars	Page No
I	Acknowledgement	5
II	Executive Summary	6
III	Abbreviations	8
1	Introduction	9
2	Study of Resource Consumption & CO ₂ Emission	11
3	Study of Usage of Renewable Energy	13
4	Study of Waste Management	14
5	Study of Rain Water Management	15
6	Study of Environment Friendly Practices	16

ACKNOWLEDGEMENT

We Enrich Consultants, Pune, express our sincere gratitude to the management of Shri Wagheshwar Gramvikas Pratishthan's Shri Vasantao Pharate Patil Arts, Commerce & Science College, Mandavgan Pharate, Taluka: Shirur, District: Pune, for awarding us the assignment of Environmental Audit of their Mandavgan campus for the Year: 19-20.

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

EXECUTIVE SUMMARY

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

2. Pollution due to Day to Day Activities:

- **Air pollution:** Mainly CO₂ on account of Electricity Consumption
- **Solid Waste:** Bio degradable Waste, Garden Waste, Recyclable Waste and Human Waste
- **Liquid Waste:** Human Liquid waste

3. Energy Purchased & CO₂ Emission:

No	Parameter	Energy Consumed, kWh	CO ₂ emissions, MT
1	Total	12599	10.08
2	Maximum	1231	0.98
3	Minimum	785	0.63
4	Average	1049.92	0.84

4. Various Measures Adopted for Environmental Conservation:

- Usage of Energy Efficient LED fittings
- Maximum Usage of Day Lighting
- Installation of Solar Thermal Water Heating System at Hostel.

5. Usage of Renewable Energy:

- The College has installed Solar Thermal Water Heating System at Hostel.

6. Waste Management:

6.1 Segregation of Waste at Source:

The Waste is segregated at source and the recyclable waste like Paper waste, Plastic Waste is handed over to authorized agency.

6.2 Sanitary Waste Management:

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

6.3 E-Waste Management:

It is recommended to dispose of the E-Waste through Authorized Agency.

7. Rain Water Management:

The College has installed Rainwater Management Project. The rain water falling on the terrace is collected through pipes and is used to increase the underground water table.

8. Eco Friendly Practices:

- Internal Tree Plantation

9. Assumption:

- 1 kWh (Unit) of Electrical Energy releases **0.9 Kg of CO₂** into atmosphere

10. Reference:

1. For CO₂ calculations: www.tatapower.com

ABBREVIATIONS

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

CHAPTER-I INTRODUCTION

1.1 Important Definitions:

1.1.1 Environment: Definition as per environment Protection Act: 1986

Environment includes water, air and land and the inter-relationship which exists among and between Water, Air, Land and Human beings, other living creatures, plants microorganism and property

1.1.2. Environmental Audit: Definition:

An audit which aims at verification and validation to ensure that various environmental laws are compiled with and adequate care has been taken towards environmental protection and preservation

According to UNEP, 1990, "Environmental audit can be defined as a management tool comprising systematic, documented and periodic evaluation of how well environmental organization management and equipment are performing with an aim of helping to regularize the environment"

1.1.3. Environmental Pollutant: means any solid, liquid and gaseous substance present in the concentration as may be, or tend to be, injurious to Environment.

1.1.4. Relevant Environmental Laws in India: Table No-1:

1927	The Indian Forest Act
1972	The Wildlife Protection Act
1974	The Water (Prevention and Control of Pollution) Act
1977	The Water (Prevention & Control of Pollution) Cess Act
1980	The Forest (Conservation) Act
1981	The Air (Prevention and Control of Pollution) Act
1986	The Environment Protection Act
1991	The Public Liability Insurance Act
2002	The Biological Diversity Act
2010	The National Green Tribunal Act

1.1.5. Some Important Environmental Rules in India: Table No-2:

1989	Hazardous Waste (Management and Handling) Rules
1989	Manufacture, Storage and Import of Hazardous Chemical Rules
2000	Municipal Solid Waste (Management and Handling) Rules
1998	The Biomedical Waste (Management and Handling) Rules
1999	The Environment (Siting for Industrial Projects) Rules
2000	Noise Pollution (Regulation and Control) Rules
2000	Ozone Depleting Substances (Regulation and Control) Rules
2011	E-waste (Management and Handling) Rules

2011	National Green Tribunal (Practices and Procedure) Rules
2011	Plastic Waste (Management and Handling) Rules

1.1.6 National Environmental Plans & Policy Documents: Table No-3:

1.	National Forest Policy, 1988
2.	National Water Policy, 2002
3.	National Environment Policy or NEP (2006)
4.	National Conservation Strategy and Policy Statement on Environment and Development, 1992
5.	Policy Statement for Abatement of Pollution (1992)
6.	National Action Plan on Climate Change
7.	Vision Statement on Environment and Human Health
8.	Technology Vision 2030 (The Energy Research College)
9.	Addressing Energy Security and Climate Change (MoEF and Bureau of Energy Efficiency)
10.	The Road to Copenhagen; India's Position on Climate Change Issues (MoEF)

1.2 Objectives:

1. To study Recourse Consumption and CO₂ Emission
2. To Study CO₂ Emission Reduction
3. To Study Waste Management Practices
4. To Study Rain Water Management
5. To study Environment Friendly Practices

1.3 Table No 4: General Details of College:

No	Head	Particulars
1	Name	Shri Wagheshwar Gramvikas Pratishtan's Shri Vasantao Pharate Patil Arts, Commerce & Science College,
2	Address	Mandavgan Pharate, Taluka: Shirur, District: Pune 412 211
3	Affiliation	Savitribai Phule Pune University

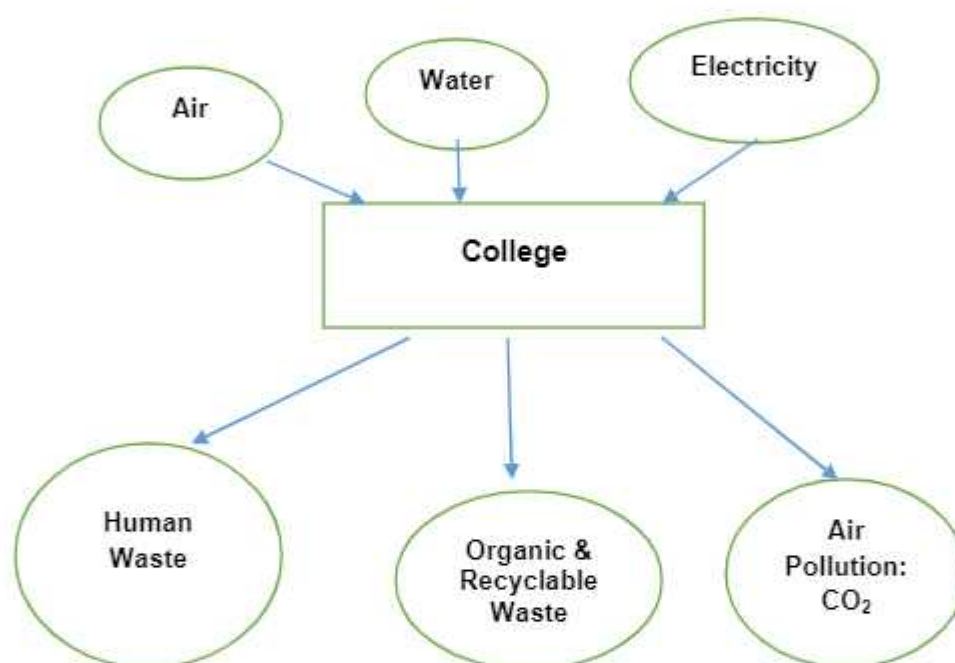
CHAPTER-II STUDY OF RESOURCE CONSUMPTION & CO₂ EMISSION

The College consumes following Natural/derived Resources:

1. Air
2. Water
3. Electrical Energy

We try to draw a schematic diagram for the College System & Environment as under.

Chart No: 1: Representation of College as System:



We compute the Generation of CO₂ on account of consumption of Electrical Energy as under. The basis of Calculation for CO₂ emissions due to Electrical Energy are: 1 Unit (kWh) of Electrical Energy releases **0.9 Kg of CO₂** into atmosphere.

Table No 5: Electrical Energy Usage & CO₂ Emission: 19-20:

No	Month	Energy Consumed, kWh	CO ₂ Emissions, MT
1	Apr-19	1179	0.94
2	May-19	989	0.79
3	Jun-19	785	0.63
4	Jul-19	1150	0.92
5	Aug-19	1231	0.98

6	Sep-19	1169	0.94
7	Oct-19	1098	0.88
8	Nov-19	997	0.80
9	Dec-19	1025	0.82
10	Jan-20	1086	0.87
11	Feb-20	992	0.79
12	Mar-20	898	0.72
13	Total	12599	10.08
14	Maximum	1231	0.98
15	Minimum	785	0.63
16	Average	1049.92	0.84

Chart No 2: To study CO₂ Emission:

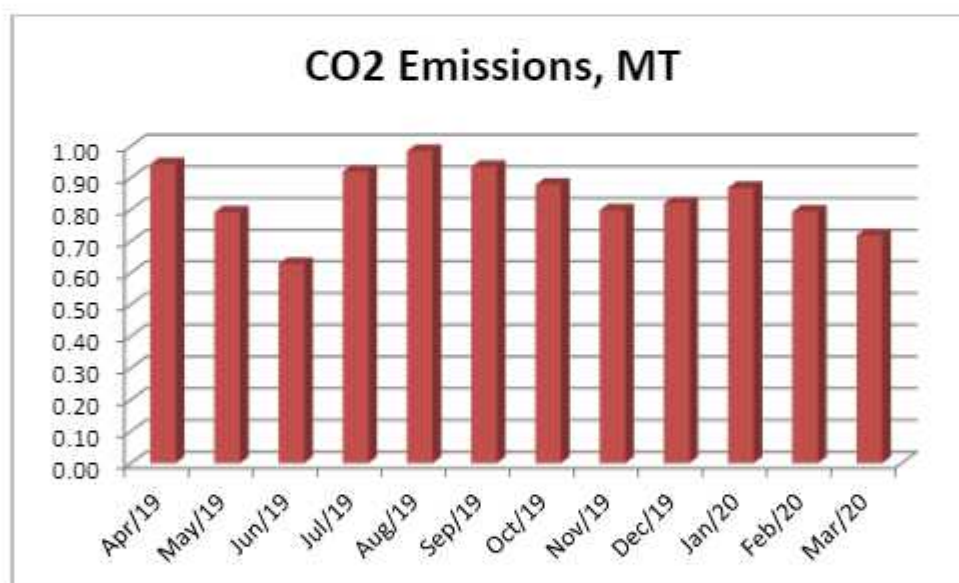


Table No 6: Important parameters:

No	Parameter	Energy Purchased, kWh	CO ₂ Emissions, MT
1	Total	12599	10.08
2	Maximum	1231	0.98
3	Minimum	785	0.63
4	Average	1049.92	0.84

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 E-Waste Management:

It is recommended to dispose of the E-Waste through Authorized Agency.

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:



CHAPTER VI

STUDY OF ENVIRONMENT FRIENDLY INITIATIVES

6.1 Internal Tree Plantation:

The College has well maintained Tree plantation.

Photograph of Tree Plantation:



ENERGY AUDIT REPORT

of

Shri Wagheshwar Gramvikas Pratishthan's,
Shri Vasantao Pharate Patil Arts, Commerce & Science College,
Mandavgan Pharata, Taluka: Shirur, District: Pune



Year: 2019-20

Prepared by

ENRICH CONSULTANTS

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

MAHARASHTRA ENERGY DEVELOPMENT AGENCY



Maharashtra Energy Development Agency

(A Government of Maharashtra undertaking)

2nd Floor, MHADA Commercial Complex, Opp. Tridal Nagar, Yerwada, Pune 411 006,
Ph No: 020-26614393/266144403

Email: eee@mahaurja.com, Web: www.mahaurja.com

ECN/2018-19/CR-05/4174

19th September, 2018

**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 : **Enrich Consultants**
Yashashree, Plot No. 26, Nirmal Bag Society,
Near Muktagan English School,
Parvati, Pune - 411009.

Registration Category : Empanelled *Consultant for Energy Conservation Programme*

Registration Number : **MEDA/ECN/CR-05/2018-19/EA-03**

- 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 the firm at any time without giving any prior information and canceling the registration, if the information is found incorrect.
- This empanelment is valid till **31st March 2021** 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.


(Smita Kudarikar)
General Manager (EC)

Enrich Consultants

Yashashree, 26, Nirmal Bag Society,
Near Mukangan English School, Parvati, Pune 411 009
Tel: 020-24220747 Email: enrichcons@gmail.com

Ref: EC/SVPPACSC/19-20/01

Date: 22/8/2020

CERTIFICATE

This is to certify that we have conducted Energy Audit at Shri Wagheshwar Gramvikas Pratishthan's Shri Vasantao Pharate Patil Arts, Commerce & Science College, Mandavgan Pharate, Taluka: Shirur, District: Pune in the year 2019-20.

The College has adopted Energy Efficient Practices:

- Usage of Energy Efficient LED Fittings
- Maximum usage of Day Lighting
- Installation of Solar Thermal Water Heating System at Hostel Block

We appreciate the support of Management, involvement of faculty members and students in the process of Energy Conservation & making the campus Green.

For Enrich Consultants,

A Y Mehendale,
Certified Energy Auditor: EA-8192

INDEX

Sr. No	Particulars	Page No
I	Acknowledgement	5
II	Executive Summary	6
III	Abbreviations	7
1	Introduction	8
2	Study of Connected Load	9
3	Study of Electrical Energy Consumption	10
4	Carbon Foot printing	12
5	Study of Usage of Alternate Energy	14
6	Study of Usage of LED Lights	15

ACKNOWLEDGEMENT

We Enrich Consultants, Pune, express our sincere gratitude to the management of Shri Wagheshwar Gramvikas Pratishthan's Shri Vasantao Pharate Patil Arts, Commerce & Science College, Mandavgan Pharate, Taluka: Shirur, District: Pune, for awarding us the assignment of Energy Audit of their Mandavgan campus for the Year: 19-20.

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

EXECUTIVE SUMMARY

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

2. Energy Consumed & CO₂ Emission:

No	Parameter	Energy Consumed, kWh	CO ₂ emissions, MT
1	Total	12599	10.08
2	Maximum	1231	0.98
3	Minimum	785	0.63
4	Average	1049.92	0.84

3. Various Measures Adopted for Energy Conservation:

- Usage of Energy Efficient LED fittings
- Maximum Usage of Day Lighting

4. Usage of Alternate Energy Source:

- The College has installed Solar Thermal Water Heating System at the Hostel Block
- The College has yet to install Roof Top Solar PV Plant.
- The % of Annual Power requirement met by Alternate Energy is Nil

5. Usage of LED Lighting to Total Lighting Load:

- The LED Lighting Load is **2.1 kW**.
- The Total Lighting Load is **3.3 kW**.
- The percentage of LED Lighting Total Lighting load works out to be **63.64 %**

6. Assumption:

- 1 kWh (Unit) of Electrical Energy releases **0.9 Kg of CO₂** into atmosphere

7. Reference:

- For CO₂ Emission Calculations: www.tatapower.com

ABBREVIATIONS

AC	∴	Air conditioner
SWGP	∴	Shri Wagheshwar Gramvikas Pratishtan
BEE	∴	Bureau of Energy Efficiency
LED	∴	Light Emitting Diode
kWh	∴	kilo-Watt Hour
Qty	∴	Quantity
W	∴	Watt
kW	∴	Kilo Watt
PC	∴	Personal Computer
MT	∴	Metric Ton
MSEDCL	∴	Maharashtra State Electricity Distribution Company Limited

CHAPTER-I INTRODUCTION

1.1 Objectives:

1. To study Connected Load
2. To study Present Energy Consumption
3. To Study CO₂ emissions
4. To study Scope for usage of Alternate / Renewable Energy
5. To study usage of LED Lighting

1.2 Table No-1: General Details of College:

No	Head	Particulars
1	Name	Shri Wagheshwar Gramvikas Pratishthan's Shri Vasantao Pharate Patil Arts, Commerce & Science College,
2	Address	Mandavgan Pharate, Taluka: Shirur, District: Pune 412 211
3	Affiliation	Savitribai Phule Pune University

CHAPTER-II

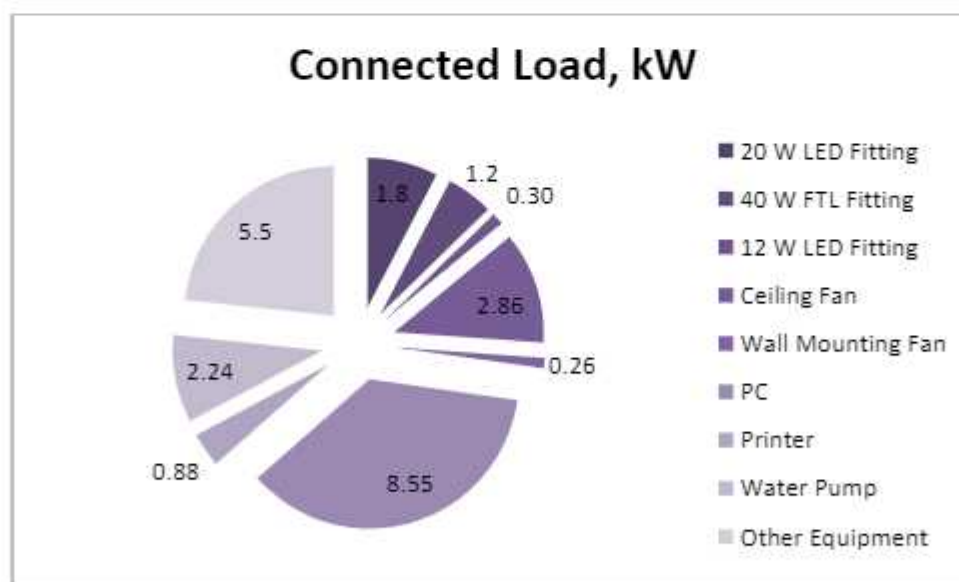
STUDY OF CONNECTED LOAD

In this chapter, we present the details of various Electrical loads as under

Table No 2: Study of Equipment wise Connected Load:

No	Equipment	Qty	Load, W/Unit	Load, kW
1	20 W LED Fitting	90	20	1.8
2	40 W FTL Fitting	30	40	1.2
2	12 W LED Fitting	25	12	0.30
3	Ceiling Fan	44	65	2.86
4	Wall Mounting Fan	5	52	0.26
5	PC	57	150	8.55
6	Printer	5	175	0.88
7	Water Pump	1	2238	2.24
8	Other Equipment	22	250	5.5
9	Total			23.58

Chart No 1: Details of Connected Load:



CHAPTER-III STUDY OF PRESENT ENERGY CONSUMPTION

In this chapter, we present the analysis of last year Electricity Energy Consumed

Table No 3: Electrical Energy Consumed: 19-20:

No	Month	Energy Consumed, kWh
1	Apr-19	1179
2	May-19	989
3	Jun-19	785
4	Jul-19	1150
5	Aug-19	1231
6	Sep-19	1169
7	Oct-19	1098
8	Nov-19	997
9	Dec-19	1025
10	Jan-20	1086
11	Feb-20	992
12	Mar-20	898
13	Total	12599
14	Maximum	1231
15	Minimum	785
16	Average	1049.92

Chart No 2: To study the variation of Month wise Energy Consumed, kWh:

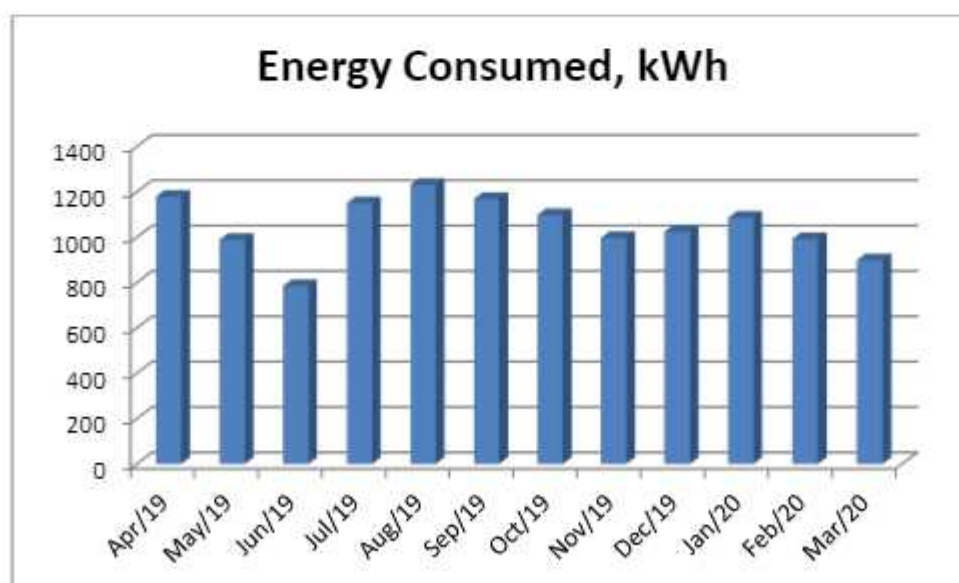


Table No 4: Important parameters:

No	Parameter	Energy Consumed, kWh
1	Total	12599
2	Maximum	1231
3	Minimum	785
4	Average	1049.92

CHAPTER-IV

CARBON FOOT PRINTING

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 uses Electrical Energy for various Electrical gadgets.

Basis for computation of CO₂ Emissions:

The basis of Calculation for CO₂ emissions due to Electrical Energy are: 1 Unit (kWh) of Electrical Energy releases **0.9 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

Table No 5: Month wise CO₂ Emissions:

No	Month	Energy Consumed, kWh	CO ₂ Emissions, MT
1	Apr-19	1179	0.94
2	May-19	989	0.79
3	Jun-19	785	0.63
4	Jul-19	1150	0.92
5	Aug-19	1231	0.98
6	Sep-19	1169	0.94
7	Oct-19	1098	0.88
8	Nov-19	997	0.80
9	Dec-19	1025	0.82
10	Jan-20	1086	0.87
11	Feb-20	992	0.79
12	Mar-20	898	0.72
13	Total	12599	10.08
14	Maximum	1231	0.98
15	Minimum	785	0.63
16	Average	1049.92	0.84

Chart No 3: Representation of Month wise CO₂ Emissions:

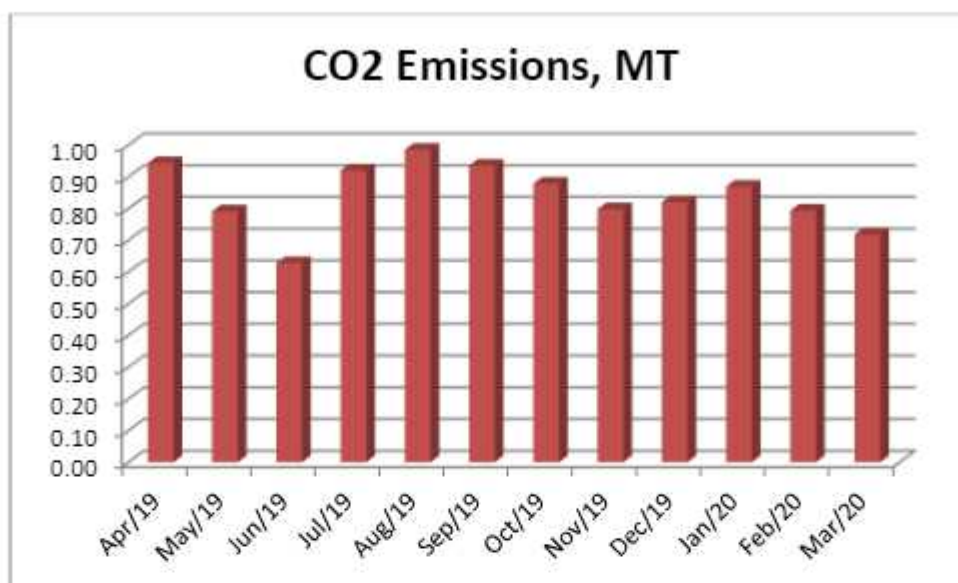


Table No 6: Key observations:

No	Parameter	Energy consumed, kWh	CO ₂ Emissions, MT
1	Total	12599	10.08
2	Maximum	1231	0.98
3	Minimum	785	0.63
4	Average	1049.92	0.84

CHAPTER-V

STUDY OF USAGE OF ALTERNATE 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.

As on Date the percentage of Annual Power requirement by Alternate Energy is nil.

Photograph of Roof Top Solar Thermal Water Heating System:



CHAPTER-VI STUDY OF USAGE OF LED LIGHTS

In the following Table, we present the percentage of usage of LED lights to Total Lighting Load.

Table No 7: Study of % LED Lighting Load to Total Lighting Load:

No	Particulars	Value	Unit
1	Qty of 20 W LED Fitting	90	Nos
2	Load of 40 W FTL Fitting	20	W/unit
3	Total Load of 40 W FTL Fitting	1.8	kW
4	Qty of 40 W FTL Fitting	30	Nos
5	Load of 20 W LED Fitting	40	W/unit
6	Total Load of 20 W LED Fittings	1.2	kW
8	Qty of 12 W LED Fitting	25	Nos
9	Load of 12 W LED Fitting	12	W/unit
10	Total Load of 12 W LED Fittings	0.3	kW
11	Total LED Lighting Load=3+9	2.1	kW
12	Total Lighting Load=3+6+9	3.3	kW
13	% of LED to Total Lighting Load=11*100/12	63.64	%

GREEN AUDIT REPORT

of

Shri Wagheshwar Gramvikas Pratishthan's,
Shri Vasantao Pharate Patil Arts, Commerce & Science College,
Mandavgan Pharata, Taluka: Shirur, District: Pune



Year: 2019-20

Prepared by

ENRICH CONSULTANTS

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

MAHARASHTRA ENERGY DEVELOPMENT AGENCY



Maharashtra Energy Development Agency

(A Government of Maharashtra undertaking)

2nd Floor, MHADA Commercial Complex, Opp. Tridal Nagar, Yerwada, Pune 411 006,
Ph No: 020-26614393/266144403

Email: eee@mahaurja.com, Web: www.mahaurja.com

ECN/2018-19/CR-05/4174

19th September , 2018

**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 : **Enrich Consultants**
Yashashree, Plot No. 26, Nirmal Bag Society,
Near Muktagan English School,
Parvati, Pune - 411009.

Registration Category : Empanelled *Consultant for Energy Conservation Programme*

Registration Number : **MEDA/ECN/CR-05/2018-19/EA-03**

- 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 the firm at any time without giving any prior information and canceling the registration, if the information is found incorrect.
- This empanelment is valid till **31st March 2021** 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.


(Smita Kudarikar)
General Manager (EC)

Enrich Consultants

Yashashree, 26, Nirmal Bag Society,
Near Mukhtangan English School, Parvati, Pune 411 009
Tel: 020-24220747 Email: enrichcons@gmail.com

Ref: ES/ SVPPACSC/19-20/02

Date: 22/8/2020

CERTIFICATE

This is to certify that we have conducted Green Audit at Shri Wagheshwar Gramvikas Pratishtan's Shri Vasantao Pharate Patil Arts, Commerce & Science College, Mandavgan Pharate, Taluka: Shirur, District: Pune in the year 2019-20.

The College has adopted Green Practices:

- Usage of Energy Efficient LED Fittings
- Installation of Solar Thermal Water Heating System at Hostel
- Segregation of Waste at source
- Installation of Rain Water Management Project
- Maintenance of Good Internal Roads
- Tree Plantation in the campus
- Provision of Ramp for Divyangajan

We appreciate the support of Management, involvement of faculty members and students in the process of Energy Conservation & making the campus Green.

For Enrich Consultants,

A Y Mehendale,
Certified Energy Auditor, EA-8192

INDEX

Sr. No	Particulars	Page No
I	Acknowledgement	5
II	Executive Summary	6
III	Abbreviations	8
1	Introduction	9
2	Study of Present Energy Consumption	10
3	Carbon Foot printing	12
4	Study of Usage of Renewable Energy	14
5	Study of Waste Management	15
6	Study of Rain Water Management	16
7	Study of Green & Sustainable Practices	17

ACKNOWLEDGEMENT

We Enrich Consultants, Pune, express our sincere gratitude to the management of Shri Wagheshwar Gramvikas Pratishthan's Shri Vasantao Pharate Patil Arts, Commerce & Science College, Mandavgan Pharate, Taluka: Shirur, District: Pune, for awarding us the assignment of Green Audit of their Mandavgan campus for the Year: 19-20.

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

..
..

EXECUTIVE SUMMARY

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

2. Energy Consumed and CO₂ Emission:

No	Parameter	Energy Consumed, kWh	CO ₂ emissions, MT
1	Total	12599	10.08
2	Maximum	1231	0.98
3	Minimum	785	0.63
4	Average	1049.92	0.84

3. Various Measures Adopted for Energy Conservation:

- Usage of Energy Efficient LED fittings
- Maximum Usage of Day Lighting
- Installation of Solar Thermal Water Heating System at Hostel.

4. Usage of Renewable Energy Source:

- The College has installed Solar Thermal Water Heating System at Hostel.

5. Waste Management:

5.1 Segregation of Waste at Source:

The Waste is segregated at source and the recyclable waste like Paper waste, Plastic Waste is handed over to authorized agency.

5.2 Sanitary Waste Management:

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

5.3 E-Waste Management:

It is recommended to dispose of the E-Waste through Authorized Agency.

6. Rain Water Management:

The College has installed Rainwater Management Project. The rain water falling on the terrace is collected through pipes and is used to increase the underground water table.

7. Green & Sustainable Practices:

- Good Internal Roads
- Internal Tree Plantation

- Provision of Ramp for Divyangajan

8. Assumption:

- 1 kWh (Unit) of Electrical Energy releases **0.9 Kg of CO₂** into atmosphere

9. Reference:

- For CO₂ calculations: 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 Objectives:

1. To study present Energy Consumption
2. To Study the present CO₂ emissions
3. To study Usage of Renewable Energy
4. To study Waste Management practices
5. To study Green & Sustainable Practices

1.2 Table No-1: General Details of College:

No	Head	Particulars
1	Name	Shri Wagheshwar Gramvikas Pratishthan's Shri Vasantao Pharate Patil Arts, Commerce & Science College,
2	Address	Mandavgan Pharate, Taluka: Shirur, District: Pune 412 211
3	Affiliation	Savitribai Phule Pune University

CHAPTER-II

STUDY OF PRESENT ENERGY CONSUMPTION

In this chapter, we present the analysis of last year Electricity Energy Consumption

Table No 2: Electrical Energy Purchase Analysis- 19-20:

No	Month	Energy Consumed, kWh
1	Apr-19	1179
2	May-19	989
3	Jun-19	785
4	Jul-19	1150
5	Aug-19	1231
6	Sep-19	1169
7	Oct-19	1098
8	Nov-19	997
9	Dec-19	1025
10	Jan-20	1086
11	Feb-20	992
12	Mar-20	898
13	Total	12599
14	Maximum	1231
15	Minimum	785
16	Average	1049.92

Chart No 1: To study the variation of Month wise Energy Consumed, kWh:

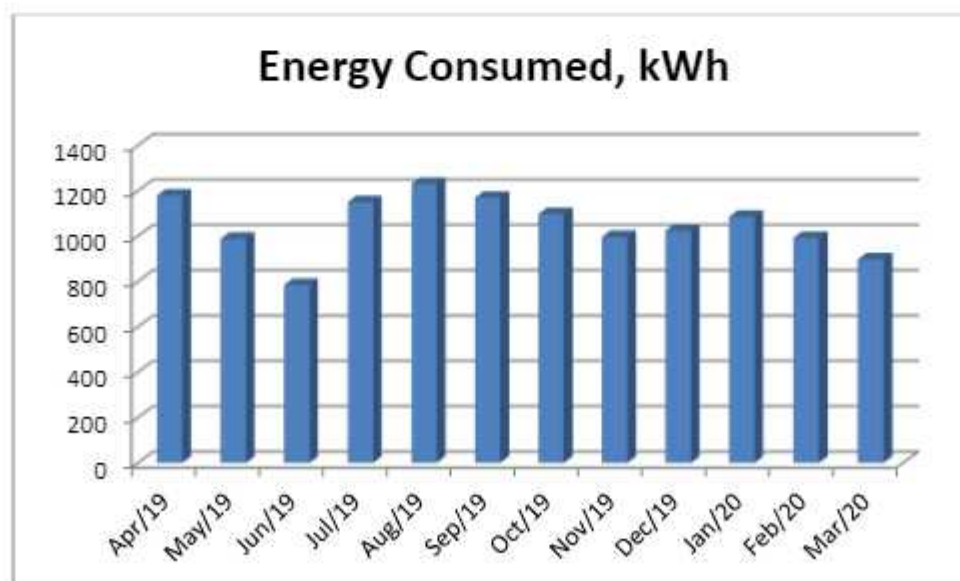


Table No 3: Important parameters:

No	Parameter	Energy consumed, kWh
1	Total	12599
2	Maximum	1231
3	Minimum	785
4	Average	1049.92

CHAPTER-III

CARBON FOOT PRINTING

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 uses Electrical Energy for various Electrical gadgets.

Basis for computation of CO₂ Emissions:

The basis of Calculation for CO₂ emissions due to Electrical Energy are: 1 Unit (kWh) of Electrical Energy releases **0.9 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

Table No 4: Month wise CO₂ Emissions:

No	Month	Energy Consumed, kWh	CO ₂ Emissions, MT
1	Apr-19	1179	0.94
2	May-19	989	0.79
3	Jun-19	785	0.63
4	Jul-19	1150	0.92
5	Aug-19	1231	0.98
6	Sep-19	1169	0.94
7	Oct-19	1098	0.88
8	Nov-19	997	0.80
9	Dec-19	1025	0.82
10	Jan-20	1086	0.87
11	Feb-20	992	0.79
12	Mar-20	898	0.72
13	Total	12599	10.08
14	Maximum	1231	0.98
15	Minimum	785	0.63
16	Average	1049.92	0.84

Chart No 2: Representation of Month wise CO₂ emissions:

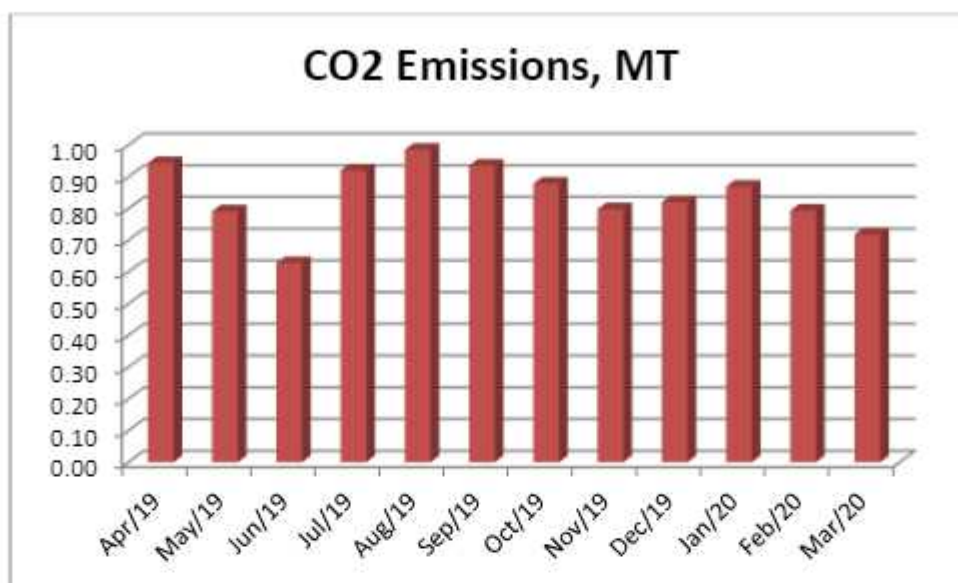


Table No 5: Key observations:

No	Parameter	Energy Consumed, kWh	CO ₂ Emissions, MT
1	Total	12599	10.08
2	Maximum	1231	0.98
3	Minimum	785	0.63
4	Average	1049.92	0.84

CHAPTER-IV

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-V STUDY OF WASTE MANAGEMENT

5.1 Segregation of Waste at Source:

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

Photograph of Separate Waste Collection Bin:



5.2 Sanitary Waste Management:

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

Photograph of Sanitary Waste Incinerator:



5.3 E-Waste Management:

It is recommended to dispose of the E-Waste through Authorized Agency.

CHAPTER-VI

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:



CHAPTER-VII

STUDY OF GREEN & SUSTAINABLE PRACTICES

7.1 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:



7.2 Internal Tree Plantation:

The College has well maintained Tree Plantation.

Photograph of Tree Plantation:



7.3 Provision of Ramp for Divyangajan:

The College has made provision of Ramp for the Divyangajan.

Photograph of Ramp for Divyangajan:





Certificate of Registration

This is to certify that

SHRI VASANTRAO PHARATE-PATIL ARTS, COMMERCE & SCIENCE COLLEGE, MANDAVGAN PHARATA

A/P:-MANDAVGAN PHARATA TAL:-SHIRUR, DIST. PUNE-412211, MAHARASHTRA, INDIA

has been independently assessed and is compliance with the requirements of:

ISO 9001:2015

Quality Management System

For the following scope of activities:

PROVIDING EDUCATION RELATED SERVICE TO STUDENTS

Certificate Number: 280323501

Date of Registration	: 28 March 2023
1st Surveillance Due	: 27 March 2024
2nd Surveillance Due	: 27 March 2025
Certificate Expiry (subject to the company maintaining its system to the required standard)	: 27 March 2026

Validity of this Certificate can be verified at www.ukcert.co.uk



James James
Authorised Signatory

UK Cert Limited (UK)

5 Jupiter House, Calleva Park, Aldermaston, Reading Berkshire RG7 8NN, UK

Website:- www.ukcert.co.uk, Email:- info@ukcert.co.uk

This certificate is the property of UK Cert Limited (UK) and shall be returned immediately on request. Validity of the Certificate is subject to successful completion of surveillance audit on or before of due date (in case surveillance audit is not allowed to be conducted, this certificate shall be suspended/cancelled).



Government of India
Ministry of Human Resource Development
Department of Higher Education
Statistics Division
New Delhi

Certificate



Reference No. C-41832-2017

This is to certify that NAVNATH BHAGWAT NIKAT of Shri Wagheshwar Gramvikas Pratishthan Sanchalit Shri Vasantao Pharate Patil Arts, Commerce & Science College, Mandavgan Farata, Tal. Shirur, Dist. Pune 412211 has successfully uploaded the data of All India Survey on Higher Education (AISHE) 2017-2018.

(Madan Mohan)
Deputy Director General

Dated: 25/01/2018

Name of the signatory



Der.
PRINCIPAL
SHRI VASANTAO PHARATE-PATIL ART'S, COMMERCE
& SCIENCE COLLEGE, MANDAVGAN PHARATA
TAL. SHIRUR, DIST. PUNE 412211



Government of India
Ministry of Human Resource Development
Department of Higher Education
Statistics Division
New Delhi

Certificate



Reference No.C-41832-2018

This is to certify that NAVNATH BHAGWAT NIKAT of Shri Wagheshwar Gramvikas Pratishthan Sanchalit Shri Vasantao Pharate Patil Arts, Commerce & Science College, Mandavgan Farata, Tal.Shirur, Dist. Pune 412211 has successfully uploaded the data of All India Survey on Higher Education(AISHE) 2018-2019.

(Madan Mohan)
Deputy Director General

Dated: 25/01/2019

Name of the signatory



per
SHRI VASANTAO PHARATE-PATIL ARTS, COMMERCE
& SCIENCE COLLEGE, MANDAVGAN PHARATA
TAL. SHIRUR, DIST. PUNE 412211



Government of India

Ministry of Human Resource Development

Department of Higher Education

Statistics Division

New Delhi

Certificate



Reference No.C-41832-2019

This is to certify that NAVNATH BHAGWAT NIKAT of Shri Wagheshwar Gramvikas Pratishthan Sanchalit Shri Vasanttrao Pharate Patil Arts, Commerce & Science College, Mandavgan Farata, Tal.Shirur, Dist. Pune 412211 has successfully uploaded the data of All India Survey on Higher Education(AISHE) 2019-2020.

(Madan Mohan)
Deputy Director General

Dated: 20/01/2020

Name of the signatory




PRINCIPAL
SHRI VASANTRAO PHARATE-PATIL ART'S, COMMERCE
& SCIENCE COLLEGE, MANDAVGAN PHARATA
TAL SHIRUR, DIST. PUNE 412211



Government of India
Ministry of Education
Department of Higher Education
Statistics Division
New Delhi

Certificate



Reference No. C-41832-2020

This is to certify that NIKAT NAVNATH BHAGWAT of Shri Wagheshwar Gramvikas Pratishthan Sanchalit Shri Vasantao Pharate Patil Arts, Commerce & Science College, Mandavgan Farata, Tal. Shirur, Dist. Pune 412211 has successfully uploaded the data of All India Survey on Higher Education(AISHE) 2020-2021.

R Rajesh

(Shri R. Rajesh)

Deputy Director General

Dated: 29/01/2022



SHRI VASANTAO PHARATE PATIL ARTS, COMMERCE
& SCIENCE COLLEGE, MANDAVGAN PHARATA
TAL. SHIRUR, DIST. PUNE 412211



Government of India
Ministry of Education
Department of Higher Education
Statistics Division
New Delhi

Certificate



Reference No. C-41832-2021

This is to certify that NIKAT NAVNATH BHAGWAT of Shri Wagheshwar Gramvikas Pratishthan Sanchalit Shri Vasantrao Pharate Patil Arts, Commerce & Science College, Mandavgan Farata, Tal. Shirur, Dist. Pune 412211 has successfully uploaded the data of All India Survey on Higher Education (AISHE) 2021-2022.

R Rajesh

(Shri R. Rajesh)

Deputy Director General

Dated: 25/12/2022



Dev
PRINCIPAL
SHRI VASANTRAO PHARATE PATIL ARTS, COMMERCE
& SCIENCE COLLEGE, MANDAVGAN PHARATA
TAL SHIRUR, DIST. PUNE 412211