



TATKARE CHARITABLE TRUST, KOLAD

DR. SHREE. NANASAHEB DHARMADHIKARI

Kolad - Gove, Tal - Roha, Dist - Raigad, Pin - 402304,

Register No E-536 (Raigad) Date - 19/8/2006.

Email ID - dr.snd.acsc.kolad288@gmail.com / Principal Mob. No. 8983512652

CHAIRMEN :AVADHUT ANIL TATKARE SECRETORY : SANDEEP ANIL TATKARE PRINCIPAL: Dr. MUNDE SHANKAR S.

7.1.2 The Institution has facilities and initiatives

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GREEN AUDIT REPORT

of

Tatkare Charitable Trust's,

DR. SHREE NANASAHEB DHARMADHIKARI

ARTS, COMMERCE & SCIENCE COLLEGE,

Gove Kolad, Tal: Roha, District: Raigad

Year: 2017-18

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 411 005

Ph No. 020-26614393/266144403 Fax No. 020-26615031

Email ecdn@mahauja.com, Web www.mahauja.com

ECN/2017-18/CR-01/5726

30th November 2017

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

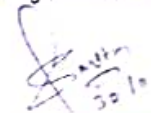
We hereby certify that, the firm having following particulars is registered with **MAHARASHTRA ENERGY DEVELOPMENT AGENCY (MEDA)** under given category as "Energy Planner & Energy Auditor in Maharashtra under Save Energy Programme of MEDA.

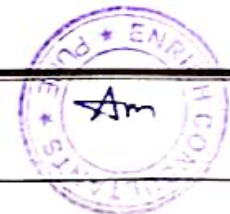
Name and Address of the firm : Enrich Consultants
Yashashree, Plot No. 26 Nirmal Baug
Society, Parvati, Pune - 411009

Registration Category : Empanelled Consultant for Save Energy Programme.

Registration Number : **MEDA/ECN/CR-01/2017-18/EA-37**

- The Save Energy 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 upto 3 year from the date of registration, to carry out energy audits under the Save Energy Programme of MEDA.
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(Smita Kudankar)
Manager (EC)



Enrich Consultants

Yashashree, 26, Nirmal Bag Society,
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Tel: 09890444795 Email: enrichcons@gmail.com

Ref: EC/ DSNDC/17-18/02

Date: 16/6/2018

CERTIFICATE

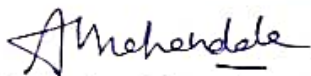
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The College has adopted following Energy Efficient and Green Practices:

- Maximum Usage of Day Lighting
- Segregation of Waste at source
- Installation of Rain Water Management Project
- Maintenance of good internal road in the campus
- 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,
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5	Study of Waste Management	14
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7	Study of Green Practices	16



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



EXECUTIVE SUMMARY

1. Tatkare Charitable Trust's Dr. Shree Nanasaheb Dharmadhikari Arts, Commerce & Science College, Gove Kolad, Tal: Roha, District: Raigad consumes Energy in the form of Electrical Energy; used for various equipment.

2. Present Energy Consumption & CO₂ Emission:

No	Parameter/ Value	Energy Consumed, kWh	CO ₂ Emissions, MT
1	Total	5693	4.55
2	Maximum	607	0.49
3	Minimum	384	0.31
4	Average	474.42	0.38

3. Usage of Renewable Energy:

- The College has yet to install Roof Top Solar PV Plant.

4. Waste Management:

4.1 Solid Waste Management:

The Waste is segregated at the source. Waste Bins are kept at various locations.

5. Rain Water Management:

The Rain water from the terrace is collected is collected through Pipe and is used to increase the underground water table.

6. Green Practices:

- Good internal road
- Internal tree plantation

7. Assumption:

1. 1 kWh of Electrical Energy releases 0.8 Kg of CO₂ into atmosphere

ABBREVIATIONS

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 compute CO₂ emissions
3. To Study Usage of Renewable Energy
4. To Study Waste Management Practices
5. To Study Rain Water Management
6. To Study Green Practices

1.2 Table No 1: General Details of College:

No	Head	Particulars
1	Name of Institution	Tatkare Charitable Trust's Dr. Shree Nanasaheb Dharmadhikari Arts, Commerce & Science College
2	Address	Gove Kolad, Tal: Roha, District: Raigad
3	Establishment	2009

CHAPTER-II STUDY OF PRESENT ENERGY CONSUMPTION

In this chapter, we present the analysis of last year Electricity Bills
Table No 2: Electrical Bill Analysis- 2017-18:

No	Month	Energy Consumed, kWh
1	Apr-17	457
2	May-17	519
3	Jun-17	395
4	Jul-17	384
5	Aug-17	478
6	Sep-17	465
7	Oct-17	505
8	Nov-17	607
9	Dec-17	532
10	Jan-18	498
11	Feb-18	397
12	Mar-18	456
13	Total	5693
14	Maximum	607
15	Minimum	384
16	Average	474.42

Chart No 1: To study the variation of Monthly Energy Consumption, kWh:

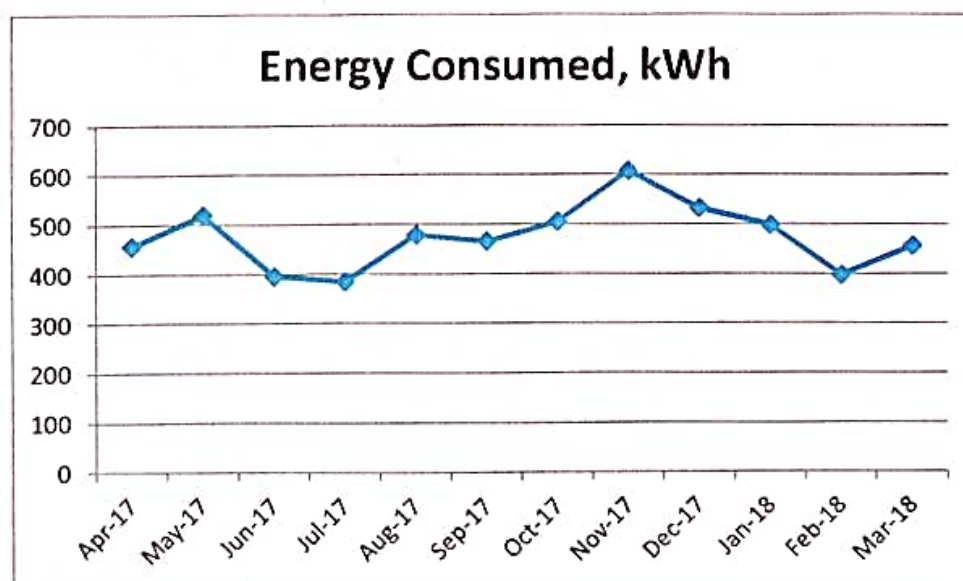


Table No 3: Various Important Parameters:

No	Parameter/ Value	Energy Consumed, kWh
1	Total	5693
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3	Minimum	384
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CHAPTER III STUDY OF 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:

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

Table No 4: Month wise CO₂ Emissions:

No	Month	Energy Consumed, kWh	CO ₂ Emissions, MT
1	Apr-17	457	0.37
2	May-17	519	0.42
3	Jun-17	395	0.32
4	Jul-17	384	0.31
5	Aug-17	478	0.38
6	Sep-17	465	0.37
7	Oct-17	505	0.40
8	Nov-17	607	0.49
9	Dec-17	532	0.43
10	Jan-18	498	0.40
11	Feb-18	397	0.32
12	Mar-18	456	0.36
13	Total	5693	4.55
14	Maximum	607	0.49
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16	Average	474.42	0.38

Chart No 2: Representation of Month wise CO₂ Emissions:

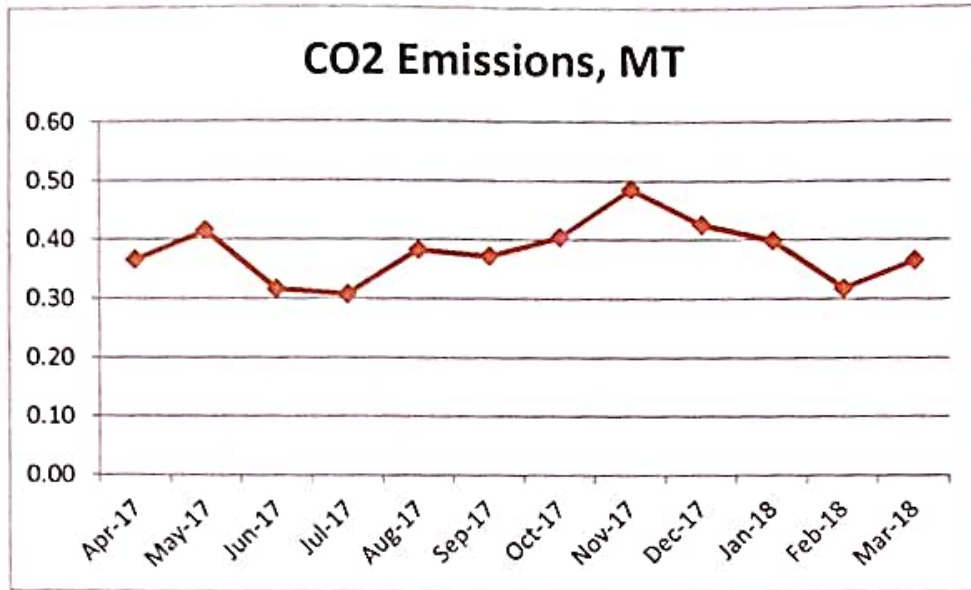


Table No 5: Various Important Parameters:

No	Parameter/ Value	Energy Consumed, kWh	CO ₂ Emissions, MT
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CHAPTER IV

STUDY OF USAGE OF RENEWABLE ENERGY

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



CHAPTER V STUDY OF WASTE MANAGEMENT

5.1 Solid Waste Management:

The Waste is segregated at the source. Waste Bins are kept at various locations.

Photograph of Waste Collection Bin:



CHAPTER VI STUDY OF RAIN WATER MANAGEMENT

The Rain water from the terrace is collected is collected through Pipe and is used to increase the underground water table.

Photograph of Rain Water Collecting Pipe from Terrace:



CHAPTER VII

STUDY OF GREEN PRACTICES

7.1 Pedestrian Friendly Road & Internal Tree Plantation:

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

Photograph of Road & Tree Plantation in the College Campus:



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ECN/2018-19/CR-05/4174

19th September, 2018

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2. Present Energy Consumption & CO₂ Emission:

No	Parameter/ Value	Energy Consumed, kWh	CO ₂ Emissions, MT
1	Total	6321	5.06
2	Maximum	855	0.68
3	Minimum	394	0.32
4	Average	526.75	0.42

3. Usage of Renewable Energy:

- The College has yet to install Roof Top Solar PV Plant

4. Waste Management:

4.1 Solid Waste Management:

The Waste is segregated at the source. Waste Bins are kept at various points.

5. Rain Water Management:

The Rain water from the terrace is collected is collected through Pipes and is used to increase the underground water table.

6. Green Practices:

- Good internal road for easy movement of commuters
- Internal tree plantation

7. Assumption:

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3	Jun-18	400
4	Jul-18	474
5	Aug-18	711
6	Sep-18	673
7	Oct-18	595
8	Nov-18	855
9	Dec-18	501
10	Jan-19	438
11	Feb-19	394
12	Mar-19	465
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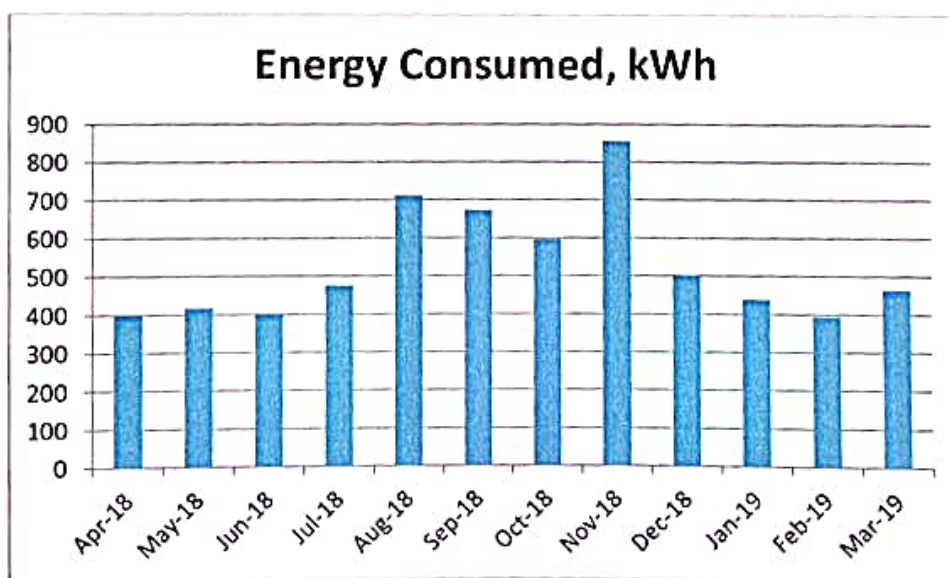


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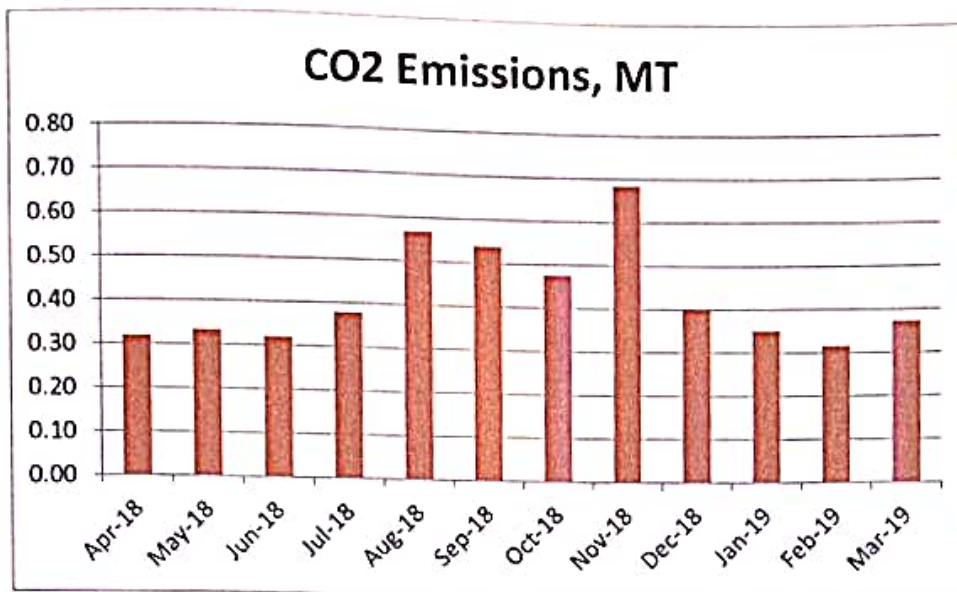


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7.1 Pedestrian Friendly Road:

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

Photograph of Internal Road inside the College Campus:



7.2 Tree Plantation:

The College has maintained plantation in the campus.

Photograph of Garden in the College campus:



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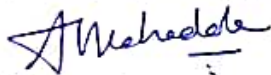
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- Usage of LED Lighting at some locations
- Segregation of Waste at source
- Installation of Rain Water Management Project
- Maintenance of good internal road in the campus
- Tree Plantation in the Campus
- Creation of Awareness on Energy Conservation by Display of Posters

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2. Present Energy Consumption & CO₂ Emission:

No	Parameter/ Value	Energy Consumed, kWh	CO ₂ Emissions, MT
1	Total	5819	5.24
2	Maximum	679	0.61
3	Minimum	398	0.358
4	Average	484.92	0.44

3. Usage of Renewable Energy:

- The College has yet to Roof Top install Solar PV Plant

4. Waste Management:

4.1 Segregation of Waste at source:

The Waste is segregated at the source: Waste bins are kept at various locations.

4.2 Organic Waste Management:

It is recommended to convert organic waste into Bio compost, in a Bio Composting Bed.

5. Rain Water Management:

The Rain water from the terrace is collected is collected through Pipes and is used to increase the underground water table.

6. Green & Sustainable Practices:

- Good internal road for easy movement of commuters
- Internal tree plantation
- Creation of Awareness on Energy Conservation by Display of Posters

7. Assumption:

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

7. Reference:

- For CO₂ Emissions: www.tatapower.com

ABBREVIATIONS

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kWh	: kilo-Watt Hour
MT	: Metric Ton
CO ₂	: Carbon Di Oxide



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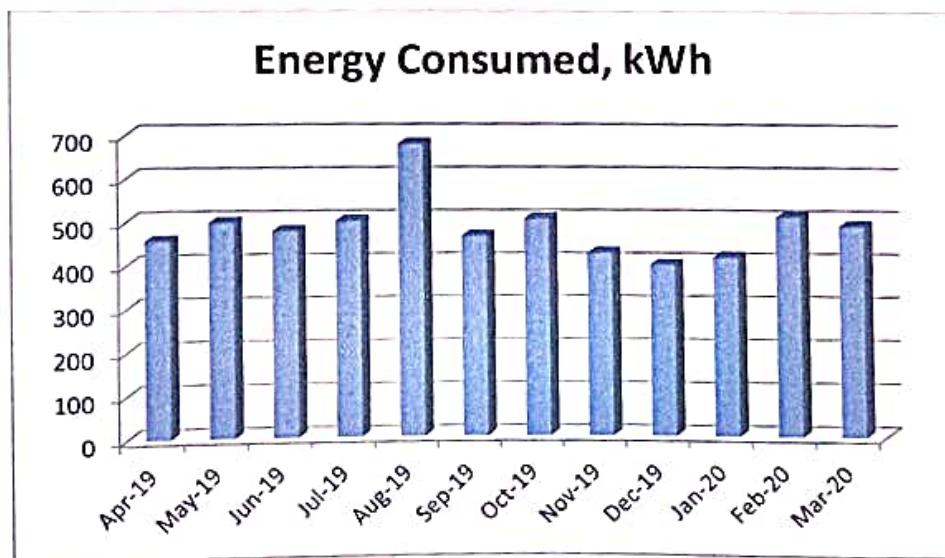


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Basis for computation of CO₂ Emissions:

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

Table No 4: Month wise CO₂ Emissions:

No	Month	Energy Consumed, kWh	CO ₂ Emissions, MT
1	Apr-19	457	0.41
2	May-19	498	0.45
3	Jun-19	478	0.43
4	Jul-19	501	0.45
5	Aug-19	679	0.61
6	Sep-19	465	0.42
7	Oct-19	505	0.45
8	Nov-19	425	0.38
9	Dec-19	398	0.36
10	Jan-20	415	0.37
11	Feb-20	509	0.46
12	Mar-20	489	0.44
13	Total	5819	5.24
14	Maximum	679	0.61
15	Minimum	398	0.358
16	Average	484.92	0.44

Chart No 2: Representation of Month wise CO₂ Emissions:

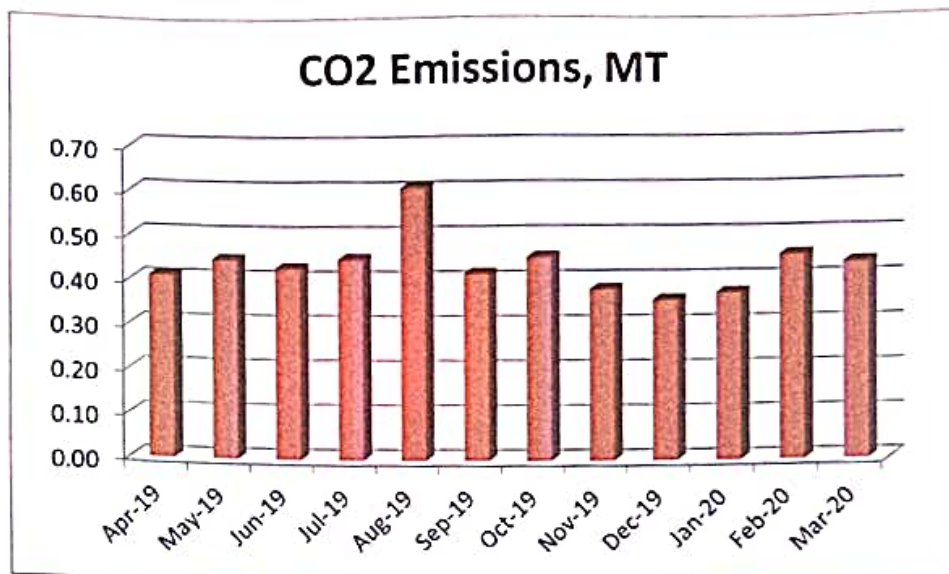


Table No 5: Various Important Parameters:

No	Parameter/ Value	Energy Consumed, kWh	CO ₂ Emissions, MT
1	Total	5819	5.24
2	Maximum	679	0.61
3	Minimum	398	0.358
4	Average	484.92	0.44

CHAPTER IV

STUDY OF USAGE OF RENEWABLE ENERGY

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



CHAPTER V STUDY OF WASTE MANAGEMENT

5.1 Solid Waste Management:

The Waste is segregated at the source: Waste bins are kept at various locations.

Photograph of Waste Collection Bin:



5.2 Organic Waste Management:

It is recommended to convert organic waste into Bio compost, in a Bio Composting Bed.

CHAPTER VI STUDY OF RAIN WATER MANAGEMENT

The Rain water from the terrace is collected is collected through Pipes and is used to increase the underground water table.

Photograph of Rain Water Carrying Pipe from Terrace:



CHAPTER VII

STUDY OF GREEN PRACTICES

7.1 Pedestrian Friendly Road:

The College has well maintained internal roads to facilitate the easy movement of the students within the campus.

Photograph of Internal Road inside the College Campus:



7.2 Tree Plantation:

The College has maintained plantation in the campus.

Photograph of Garden in the College campus:



7.3 Creation of Awareness on Energy Conservation:

The College has displayed poster on Energy Conservation, to create the awareness on Saving the Energy.

Photograph of Poster on Energy Conservation:



GREEN AUDIT REPORT

of

Tatkare Charitable Trust's,

DR. SHREE NANASAHEB DHARMADHIKARI

ARTS, COMMERCE & SCIENCE COLLEGE,

Gove Kolad, Tal: Roha, District: Raigad



Year: 2020-21

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 Mukangan 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/DSNDC/20-21/02

Date: 6/7/2021

CERTIFICATE

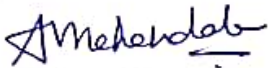
This is to certify that we have conducted Green Audit at Tatkare Charitable Trust's Dr. Shree Nanasaheb Dharmadhikari Arts, Commerce & Science College, Gove Kolad, Tal: Roha, District: Raigad in the year 2020-21.

The College has adopted following Energy Efficient and Green practices:

- Maximum Usage of Day Lighting
- Usage of LED Lighting
- Segregation of Waste at source
- Vermi Composting Arrangement for Organic Waste Conversion
- Installation of Rain Water Management Project
- Maintenance of good internal road in the campus
- Tree Plantation in the Campus
- Creation of Awareness on Water Conservation by Display of Posters

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

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3	Carbon Foot printing	11
4	Study of Usage of Renewable Energy	13
5	Study of Waste Management	14
6	Study of Rain Water Management	15
7	Study of Green & Sustainable Practices	16

ACKNOWLEDGEMENT

We at Enrich Consultants, Pune, express our sincere gratitude to the management of Tatkare Charitable Trust's Dr. Shree Nanasaheb Dharmadhikari Arts, Commerce & Science College, Gove Kolad, Tal: Roha, District: Raigad, for awarding us the assignment of Green Audit of their Gove Kolad Campus for the Year: 2020-21.

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



EXECUTIVE SUMMARY

1. Tatkare Charitable Trust's Dr. Shree Nanasaheb Dharmadhikari Arts, Commerce & Science College, Gove Kolad, Tal: Roha, District: Raigad consumes Energy in the form of Electrical Energy; used for various equipment.

2. Present Energy Consumption & CO₂ Emission:

No	Parameter/ Value	Energy Consumed, kWh	CO ₂ Emissions, MT
1	Total	4910	4.42
2	Maximum	1404	1.26
3	Minimum	0	0
4	Average	409.17	0.37

3. Usage of Renewable Energy:

- The College has yet to install Roof Top Solar PV Plant.

4. Waste Management:

4.1 Solid Waste Management:

The Waste is segregated at the source. Waste Bins are kept at various locations.

4.2 Organic Waste Management:

The College has installed a Vermi Composting Unit, for conversion of Organic Waste.

5. Rain Water Management:

The Rain water is collected is collected through Pipe and is used to increase the underground water table

6. Green & Sustainable Practices:

- Good internal road for easy movement of commuters
- Internal tree plantation
- Creation of Awareness on Water Conservation by Display of Posters

7. Assumption:

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

8. Reference:

- For CO₂ Emission Calculations: www.tatapower.com

ABBREVIATIONS

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 compute CO₂ emissions
3. To Study Usage of Renewable Energy
4. To Study Waste Management Practices
5. To Study Rain Water Management
6. To Study Green & Sustainable Practices

1.2 Table No 1: General Details of College:

No	Head	Particulars
1	Name of Institution	Tatkare Charitable Trust's Dr. Shree Nanasaheb Dharmadhikari Arts, Commerce & Science College
2	Address	Gove Kolad, Tal: Roha, District: Raigad
3	Establishment	2009

CHAPTER-II STUDY OF PRESENT ENERGY CONSUMPTION

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

Table No 2: Electrical Bill Analysis- 2020-21:

No	Month	Energy Consumed, kWh
1	Apr-20	409
2	May-20	403
3	Jun-20	403
4	Jul-20	0
5	Aug-20	1404
6	Sep-20	301
7	Oct-20	415
8	Nov-20	385
9	Dec-20	281
10	Jan-21	311
11	Feb-21	304
12	Mar-21	294
13	Total	4910
14	Maximum	1404
15	Minimum	0
16	Average	409.17

Chart No 1: To study the variation of Monthly Energy Consumption, kWh:

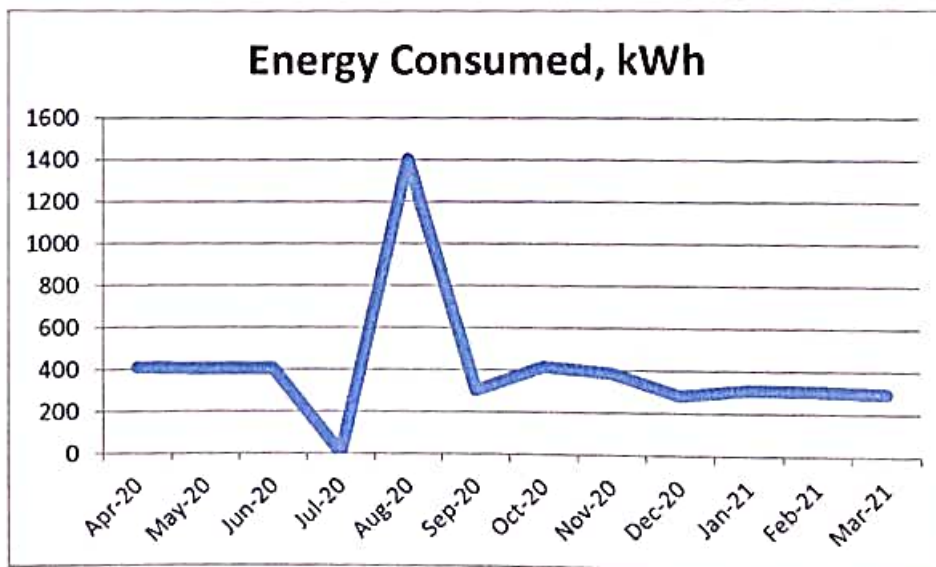


Table No 3: Various Important Parameters:

No	Parameter/ Value	Energy Consumed, kWh
1	Total	4910
2	Maximum	1404
3	Minimum	0
4	Average	409.17



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:

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

Table No 4: Month wise CO₂ Emissions:

No	Month	Energy Consumed, kWh	CO ₂ Emissions, MT
1	Apr-20	409	0.37
2	May-20	403	0.36
3	Jun-20	403	0.36
4	Jul-20	0	0.00
5	Aug-20	1404	1.26
6	Sep-20	301	0.27
7	Oct-20	415	0.37
8	Nov-20	385	0.35
9	Dec-20	281	0.25
10	Jan-21	311	0.28
11	Feb-21	304	0.27
12	Mar-21	294	0.26
13	Total	4910	4.42
14	Maximum	1404	1.26
15	Minimum	0	0
16	Average	409.17	0.37

Chart No 2: Representation of Month wise CO₂ Emissions:

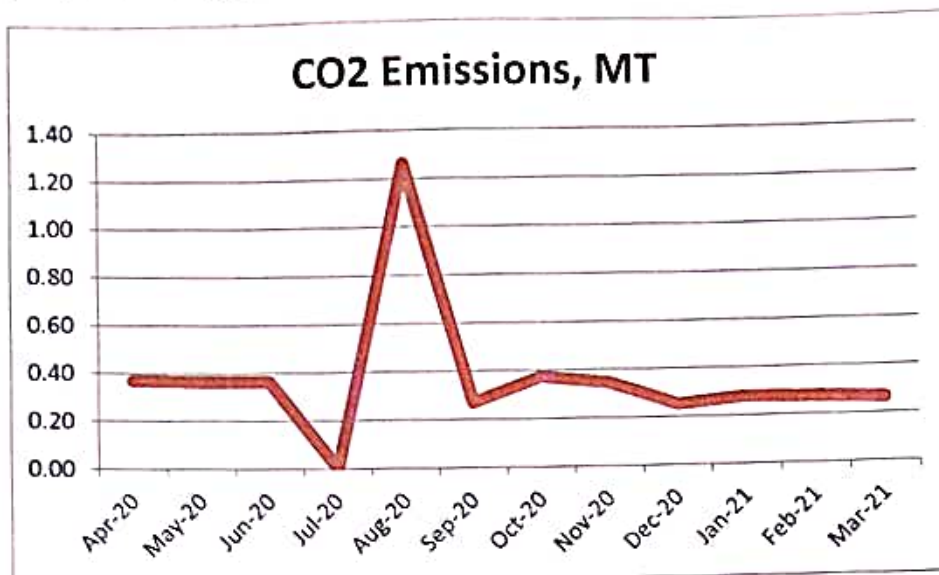


Table No 5: Various Important Parameters:

No	Parameter/ Value	Energy Consumed, kWh	CO ₂ Emissions, MT
1	Total	4910	4.42
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CHAPTER IV

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The College has yet to install Solar PV Plant



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5.1 Solid Waste Management:

The Waste is segregated at the source. Waste Bins are kept at various locations.

Photograph of Waste Collection Bin:



5.2 Organic Waste Management:

The College has a Vermi Composting Unit, to convert the Organic Waste into Compost.

Photograph of Vermi Composting Unit:



CHAPTER VI STUDY OF RAIN WATER MANAGEMENT

The Rain water from the terrace is collected is collected through Pipe and is used to increase the underground water table.

Photograph of Rain Water Management Pipe from Terrace:



Rain Water
Carrying Pipe

CHAPTER VII STUDY OF GREEN & SUSTAINABLE PRACTICES

7.1 Pedestrian Friendly Road:

The College has well maintained internal roads to facilitate the easy movement of the students within the campus.

Photograph of Internal Road inside the College Campus:



7.2 Tree Plantation:

The College has maintained plantation in the campus.

Photograph of Garden in the College campus:



7.3 Creation of Awareness on Water Conservation:

The College has displayed poster on Water Conservation at Water Cooler, to create the awareness on Saving the Water.

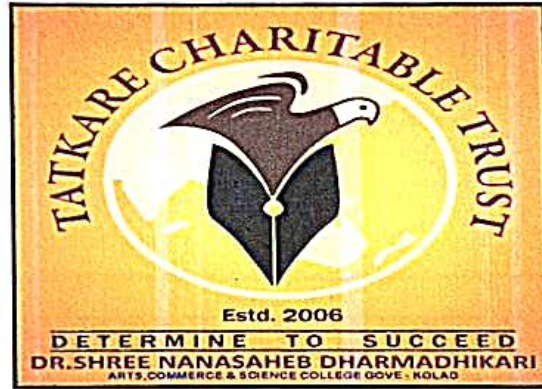
Photograph of Poster on Water Conservation:



GREEN AUDIT REPORT

of

Tatkare Charitable Trust's,
DR. SHREE NANASAHEB DHARMADHIKARI
ARTS, COMMERCE & SCIENCE COLLEGE,
Gove Kolad, Tal: Roha, District: Raigad



Year: 2021-22

Prepared by

ENGRESS SERVICES

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



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 411007
Ph No: 020-3500130
Email: ceo@maharaja.com, Web: www.maharaja.com

FCN/2022-23/CR-411709 10th May, 2022

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

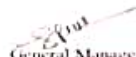
We hereby certify that, the firm having following particulars is registered with **MAHARASHTRA ENERGY DEVELOPMENT AGENCY (MEDA)** under given category as "Energy Planner & Energy Auditor" in Maharashtra for Energy Conservation Programme of MEDA.

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

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

Registration Number : MEDA/FCN/2022-23/Class A/E/1-12.

- 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 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.


General Manager (I.C.)

 **GEM Certificate** 

ASSOCIAM hereby certifies that
Mr. AY Mehendale

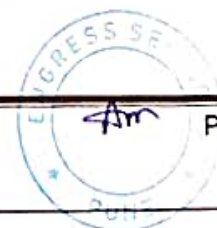
has successfully passed the
Green and Eco-friendly Movement Certified Professional Test (GEM CP)
with
"Excellent Performance"
on
06 June, 2022

*He/she is now eligible to execute the GEM Sustainability Certification Projects
ASSOCIAM feels proud to award the GEM Certified Professional title to him/her*

 **Pankaj R. Dharker**
Chairman, GEM

GEM CP 22/788

 **Deepak Sood**
Secretary General, ASSOCHAM



ENGRESS SERVICES

Yashashree, 26, Nirmal Bag Society,
Near Mukhtangan English School, Parvati, Pune 411 009
Tel: 09890444795 Email: engress123@gmail.com

Ref: EC/DSNDC/21-22/02

Date: 26/6/2022

CERTIFICATE

This is to certify that we have conducted Green Audit at Tatkare Charitable Trust's Dr. Shree Nanasahab Dharmadhikari Arts, Commerce & Science College, Gove Kolad, Tal: Roha, District: Raigad in the year 2021-22.

The College has adopted following Energy Efficient and Green practices:

- Maximum Usage of Day Lighting
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- Installation of Rain Water Management Project
- Maintenance of good internal road in the campus
- Tree Plantation in the Campus
- Creation of Awareness on Plastic Free Campus by Display of Posters

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

For Engress Services,



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Certified Energy Auditor,
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1. Tatkare Charitable Trust's Dr. Shree Nanasaheb Dharmadhikari Arts, Commerce & Science College, Gove Kolad, Tal: Roha, District: Raigad consumes Energy in the form of Electrical Energy; used for various equipment.

2. Present Energy Consumption & CO₂ Emission:

No	Parameter/ Value	Energy Consumed, kWh	CO ₂ Emissions, MT
1	Total	3820	3.44
2	Maximum	487	0.44
3	Minimum	85	0.077
4	Average	318.33	0.29

3. Usage of Renewable Energy:

- The College has yet to install Solar PV Plant.

4. Waste Management:

4.1 Solid Waste Management:

The Waste is segregated at the source. Waste bins are kept at various locations.

4.2 Organic Waste Management:

The College has installed a Vermi Composting Unit, for conversion of Organic Waste.

5. Rain Water Management:

The Rain water from the terrace is collected through Pipe and is used to increase the underground water table.

6. Green & Sustainable Initiatives:

- Good internal road for easy movement of commuters
- Internal tree plantation
- Creation of Awareness on Plastic Free Campus by Display of Posters

7. Assumption:

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

8. Reference:

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ABBREVIATIONS

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1.3 Google Earth Image:



College
Campus



CHAPTER-II STUDY OF PRESENT ENERGY CONSUMPTION

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

Table No 2: Electrical Bill Analysis- 2021-22:

No	Month	Energy Consumed, kWh
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5	Aug-21	85
6	Sep-21	373
7	Oct-21	293
8	Nov-21	381
9	Dec-21	256
10	Jan-22	267
11	Feb-22	331
12	Mar-22	369
13	Total	3820
14	Maximum	487
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Chart No 1: To study the variation of Monthly Energy Consumption, kWh:

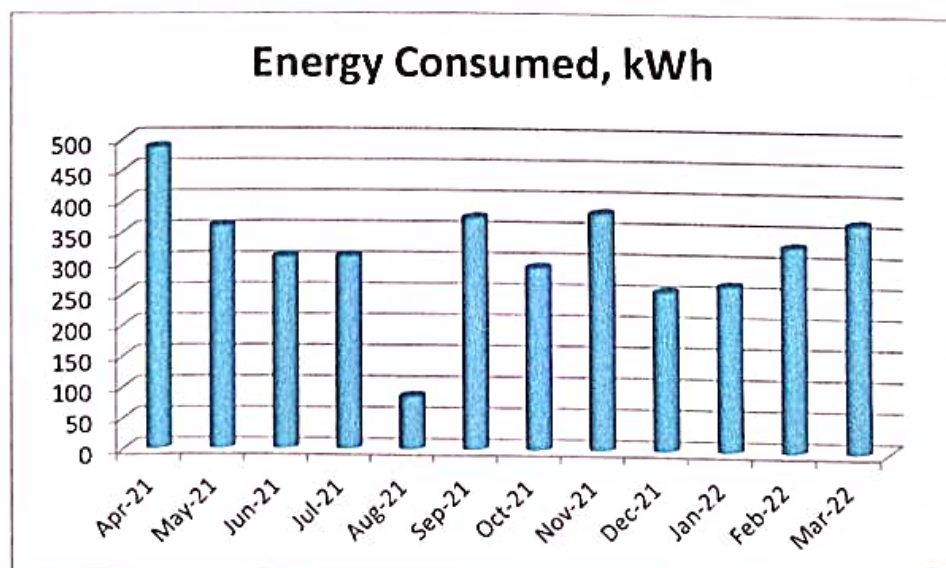


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CHAPTER III CARBON FOOT PRINTING

A Carbon Foot Print is defined as the Total Greenhouse Gas emissions, emitted due to various activities.

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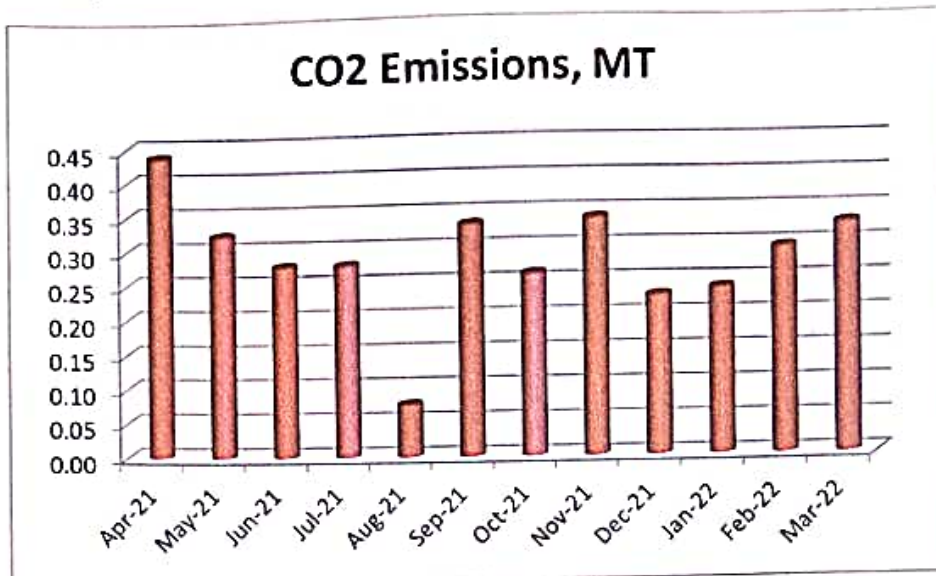


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CHAPTER IV STUDY OF USAGE OF RENEWABLE ENERGY

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

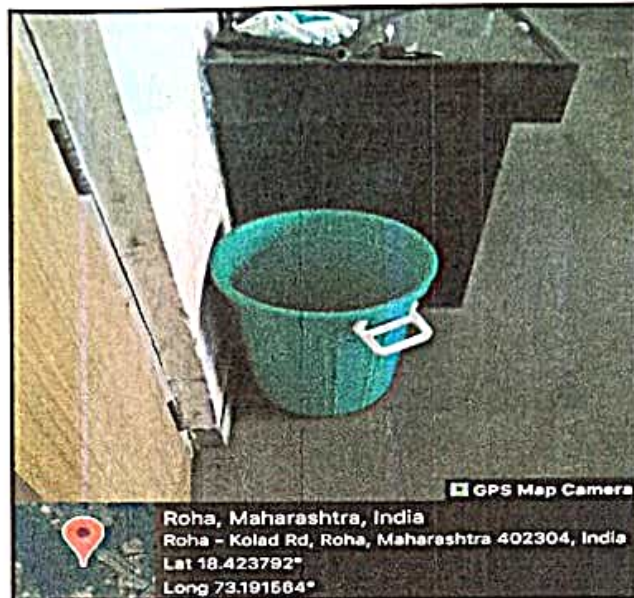


CHAPTER V STUDY OF WASTE MANAGEMENT

5.1 Solid Waste Management:

The Waste is segregated at the source. Waste Bins are kept at various locations.

Photograph of Waste Collection Bin:



5.2 Organic Waste Management:

The College has a Vermi Composting Unit, to convert the Organic Waste into Compost.

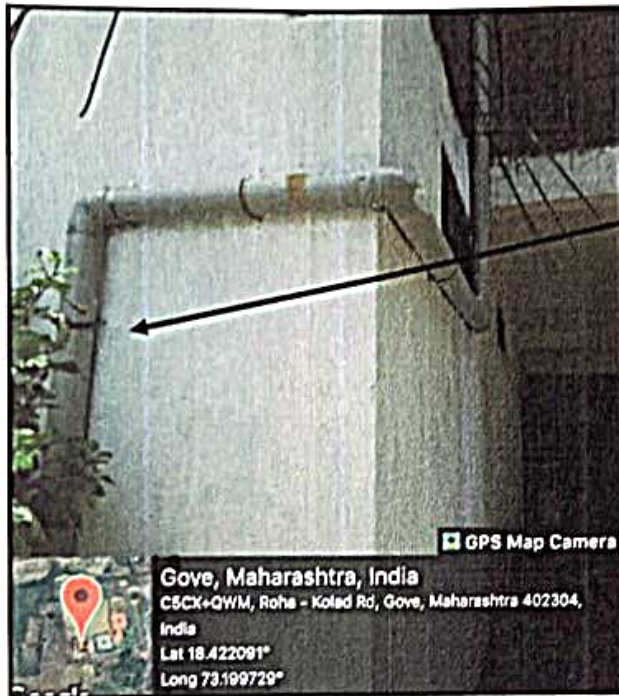
Photograph of Vermi Composting Unit:



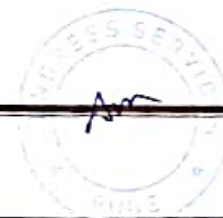
CHAPTER VI STUDY OF RAIN WATER MANAGEMENT

The Rain water from the terrace is collected is collected through Pipe and is used to increase the underground water table.

Photograph of Rain Water Management Pipe from Terrace:



Rain Water
Collecting Pipe



CHAPTER VII STUDY OF GREEN & SUSTAINABLE PRACTICES

7.1 Pedestrian Friendly Road:

The College has well maintained internal roads to facilitate the easy movement of the students within the campus.

Photograph of Internal Road inside the College Campus:



7.2 Tree Plantation:

The College has maintained plantation in the campus.

Photograph of Garden in the College campus:



7.3 Creation of Awareness on Plastic Free Campus:

In order to create awareness on Plastic Free Campus, the College has displayed Poster on the same.

Photograph of Poster on Plastic Free Campus:

