YSPM's
Yashoda College of Architecture

'YCA GREEN' EVENT

ORGANISED BY YCA, SATARA

Title: YCA GREEN

Date: 15th April 2022

Time: 8.00 am to 02:45 pm

Type: Academic year 2021-2022

Venue: Yashoda College of Architecture

Faculty Cordinators: Ar.Snehal Shedge and Ar. Renuka Raut

Aim – The aim of this initiative is to achieve sustainable development goals.

Objectives – To make society aware about waste management through college initiative and encourage students for contributing green social activities.

Introduction –

YCA GREEN event is organised by Yashoda College of architecture, Satara in collaboration with RIDOFT SUSTAINABLE ENVIRONS PVT.LTD. Ar Shounak Kadam faculty of YCA is active member of this organisation.RIDOFT SUSTAINABLE ENVIRONS PVT.LTD is a private limited company that specializes in providing sustainable environmental solutions. The company is committed to promoting sustainable practices and technologies in various sectors, including architecture, construction, waste management, and environmental conservation. By integrating sustainable practices and principles into their architectural education and design projects, Yashoda College of Architecture and RIDOFT SUSTAINABLE ENVIRONS PVT.LTD work together to create environmentally friendly and socially responsible designs. They strive to address various aspects of sustainability, such as energy efficiency, waste management, water conservation, and social equity.

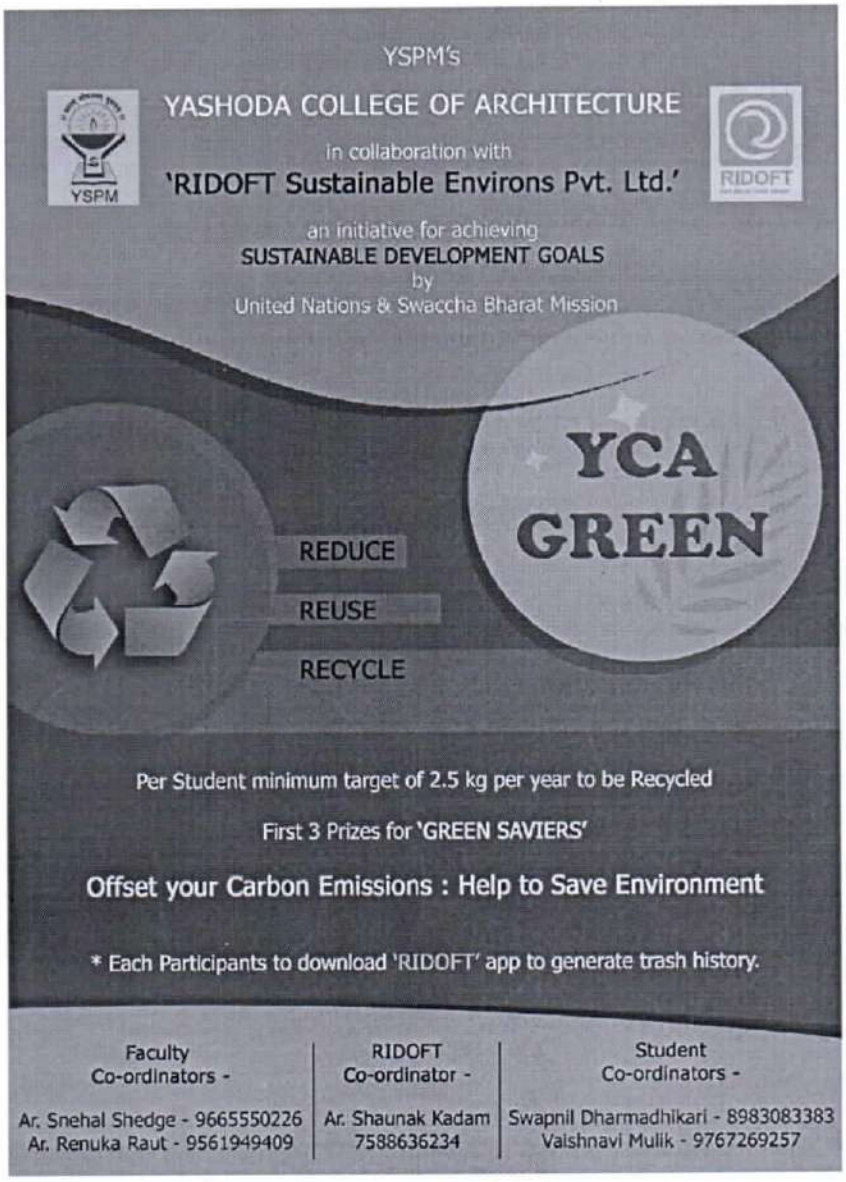
Description -

On April 15th, 2021, Yashoda College of architecture is collecting dry paper and models within college campus by all students of YCA.200 gm. of plastic will be collected from each student during registration week and tag it with students and registration ID, store it. Then handover it to RIDOFT SUSTAINABLE ENVIRONS PVT.LTD representative Ar.Shaunak Kadam. This initiative is for dry waste management to enhance, increase and establish more effective services and to achieve sustainable development goals set by United States and Swachh Bharat Mission. Purpose of this initiative to achieve sustainable development goals and to achieve this goal colleges and universities plays a vital role in preparing students to meet the sustainability

Yashoda College of Architecture Satara

challenges in future. This initiative is to be considered as a pilot project under swachh Bharat Mission.

Also per student per year two and half kg of minimum plastic to be recycled and first three prizes will be given to students as green saviours. By engaging students, staff of YCA and their households in campaign to maximize on ground impact by using RIDOFT app.



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Plastic waste is handed over to RIDOFT SUSTAINABLE ENVIRONS PVT.LTD

Prepared By: Ar.Renuka Raut

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A REPORT ON

'SETTLEMENT STUDY: VADUTH, SATARA'

Title: Settlement study Vaduth, Satara

Date: 4/05/2022 to 6/05/2022

Time: 08.00 am to 05.00 pm

Venue: Yashoda college of Architecture, Satara

Faculty co-ordinator: Ar.Shree Mhajani, Ar.Gautam Bhurke,Ar.Renuka Raut

No of Students at: 28

Aim: To gain an in-depth understanding of the town's urban morphology, including its layout, building typologies, and architectural styles and promoting environmental sustainability, green practices, and raising awareness within a particular settlement or community.

Objective:

1. To identify and document the town's cultural heritage, including its historic buildings, monuments, and other important cultural assets.
2. Raising awareness among residents about environmental issues, the benefits of green practices, and the importance of sustainable living is essential.
3. To Encouraging community engagement and participation is crucial.
4. To involve residents and stakeholders in the planning, implementation, and maintenance of green extension activities

Introduction:

Vaduth village is located at Satara district at 4km from Satara city.Satara was the capital of the Maratha Empire during the 17th century, and later, Nanasaheb Peshwa established his capital there in 1756. At the time, Satara was known as "Vaduth."The town of Vaduth Satara is located on the banks of the river Krishna, and it is known for its natural beauty and historical significance. There are many important landmarks and attractions in the town, including the temples at river basin, which was built during the 16th century to 17th century and played a significant role in the history of the Maratha Empire. YCA students done settlement study of village to study pattern of traditional houses which reflects the architecture and Maratha temple styles of different period.

04/05/2022	Introduction and primary data collection
05/05/2022	Work distribution in groups and site work

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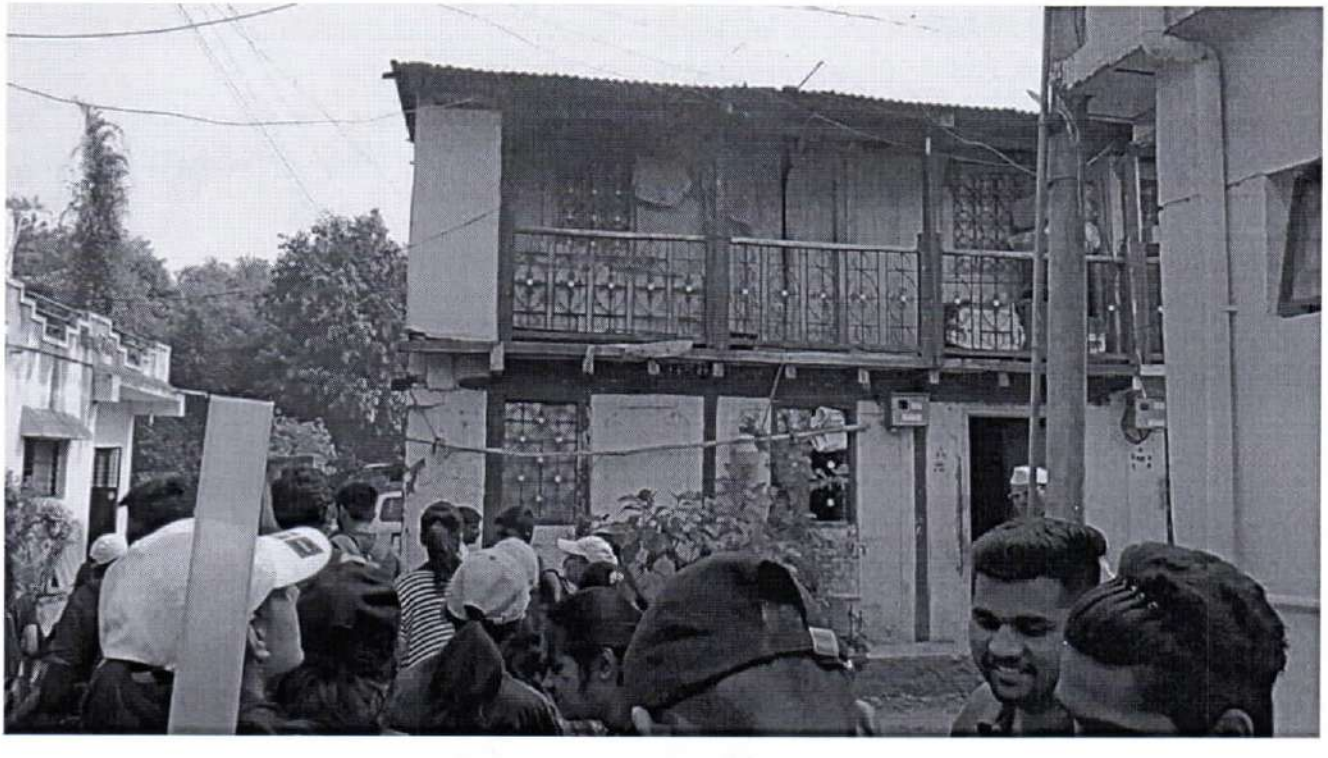
06/05/2022	Measure Drawing and topographical drawings in groups

Description:

Day 1 – 04 May 2022

Students gathered in YCA Atrium to leave for Vaduth at 8:00 am. Three faculties were accompanying students for settlement study Ar.Shree Mahajani sir, Ar.Gautam Bhurke sir Ar. Renuka Raut madam.Bus left for Vaduth at 8:00 AM and all faculties and students reached there around 8:30 AM. After reaching, initially students and faculty had a talk with village sarpanch Mr. Kishor Shinde. Then along with him all students and faculties had tour of village for understanding settlement and also to finalise the structures which need to study. As decided, students were divided into five groups for measure drawing of a four different structures. Within tour four structures were finalised for which students needs to study. First group of students were doing overall information of village and settlement study of a village. Third groups of students were expected to measure each and every part of a ghat on river and part of a baneshwar temple and draft it, also to sketch different parts of that area. Third, fourth and fifth group were given a three different old residences (Wada) which they need to study, measure and sketch different parts. After that all faculties briefed students what all week they need to do and discussion on doubts of students.



Village tour of students and faculty

Village tour of students and faculties

Student's group discussion

Day 2: 05 May 2022

Students working were working in their respective areas as per work assigned to them

One group was working on data collection of village, three groups were doing measure drawing of residences, and one group was doing measure drawing of a river ghat.

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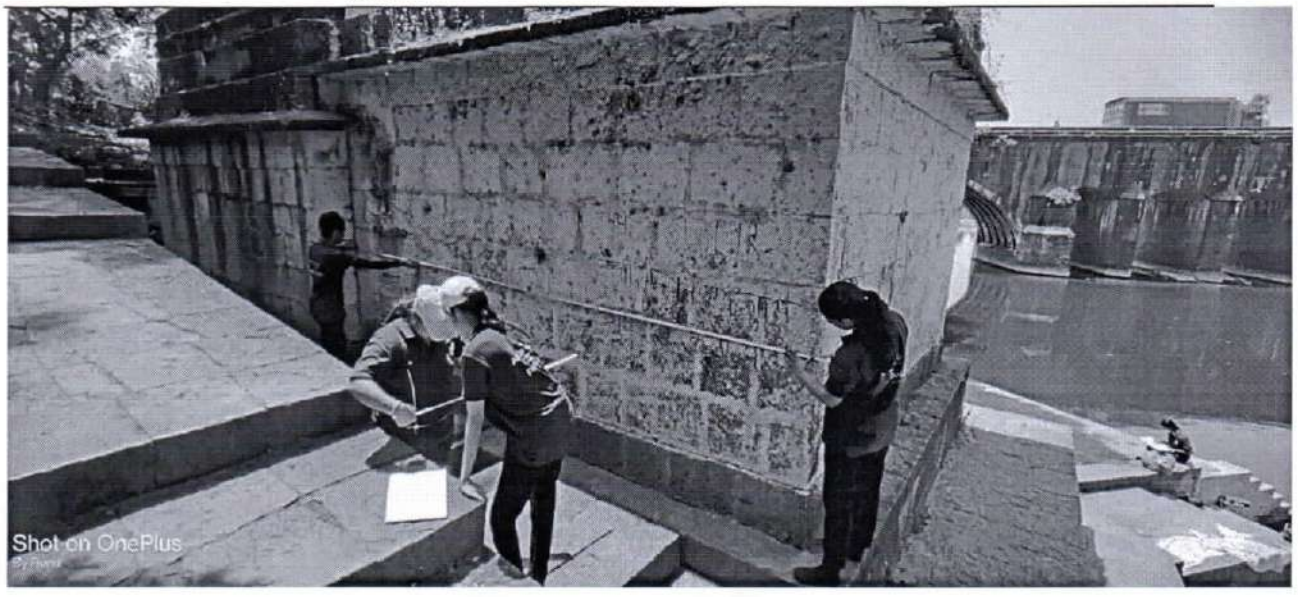
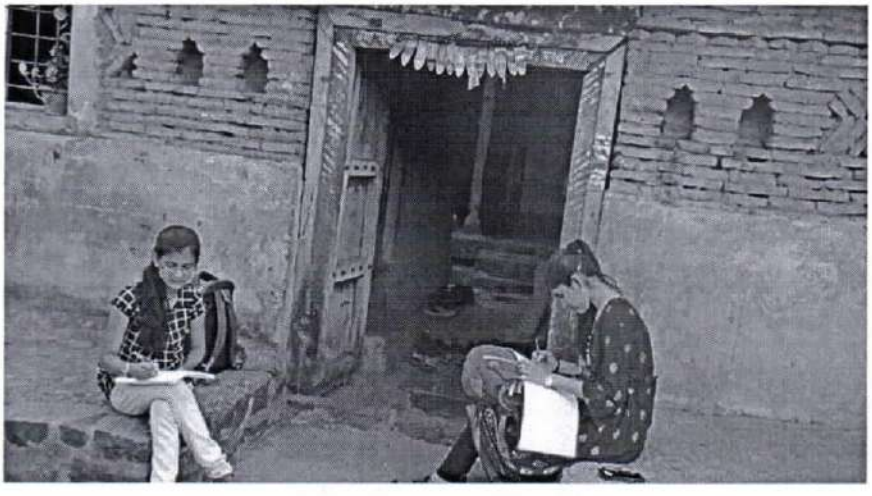


Students working on measure drawing of river ghat



Students working on measure drawing of residences

Students working on measure drawing of residences

Students working on measure drawing of residence

Day 3: 06 May 2022

For settlement study students need study topography of a village for that students need to find out terrain of a village. To find that levelling were done using instruments like auto level with tripod, staff, ranging rod, prismatic compass metric tape. Prof.Amol Jadhav sir briefed students and it was conducted under his guidance.

Briefing of levelling practical by Prof.Amol Jadha

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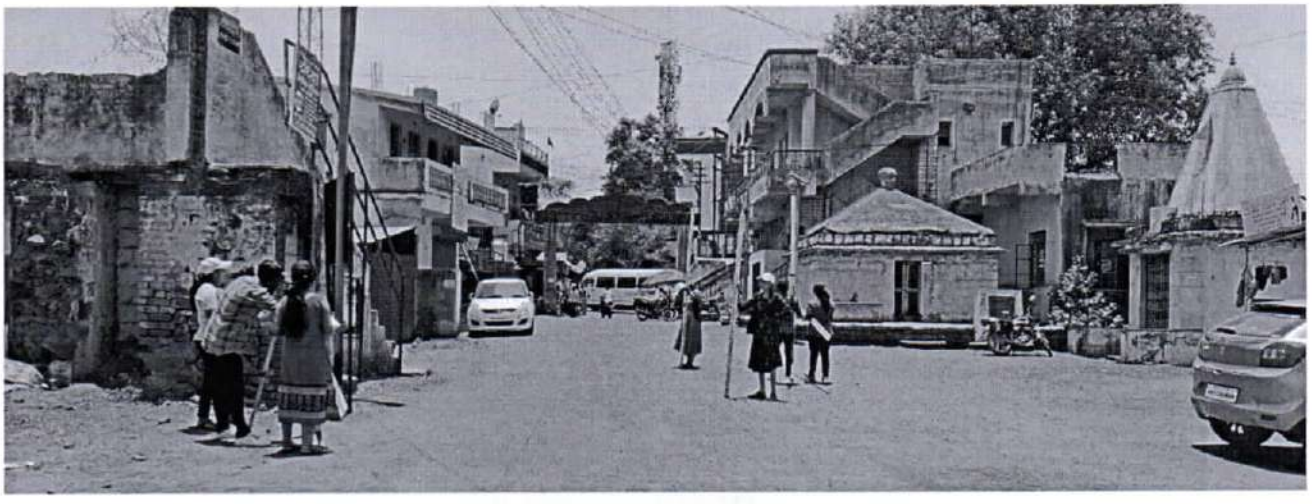
Levelling Practical



Levelling Practical

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Students of YCA visiting Grampachayat office and discussing about sustainable development and planning of green activity proposals for village

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A REPORT ON

"SWACHH SURVEKSHAN 2022"

BY, KARAD MUNICIPAL COUNCIL

Title: Swachh Survekshan 2022, organised by Karad Nagarparishad, Karad

Date: 14th January 2022

Time: 9.00 am

Type: Academic year 2021-2022

Venue: Karad Municipal Council, Karad

Aim – To identify areas where RIDOFT can contribute to improving cleanliness and waste management

Objectives –. To provides an opportunity for organizations to assess their own cleanliness and sanitation practices which helps to evaluates various parameters, and the feedback to identify areas for improvement.

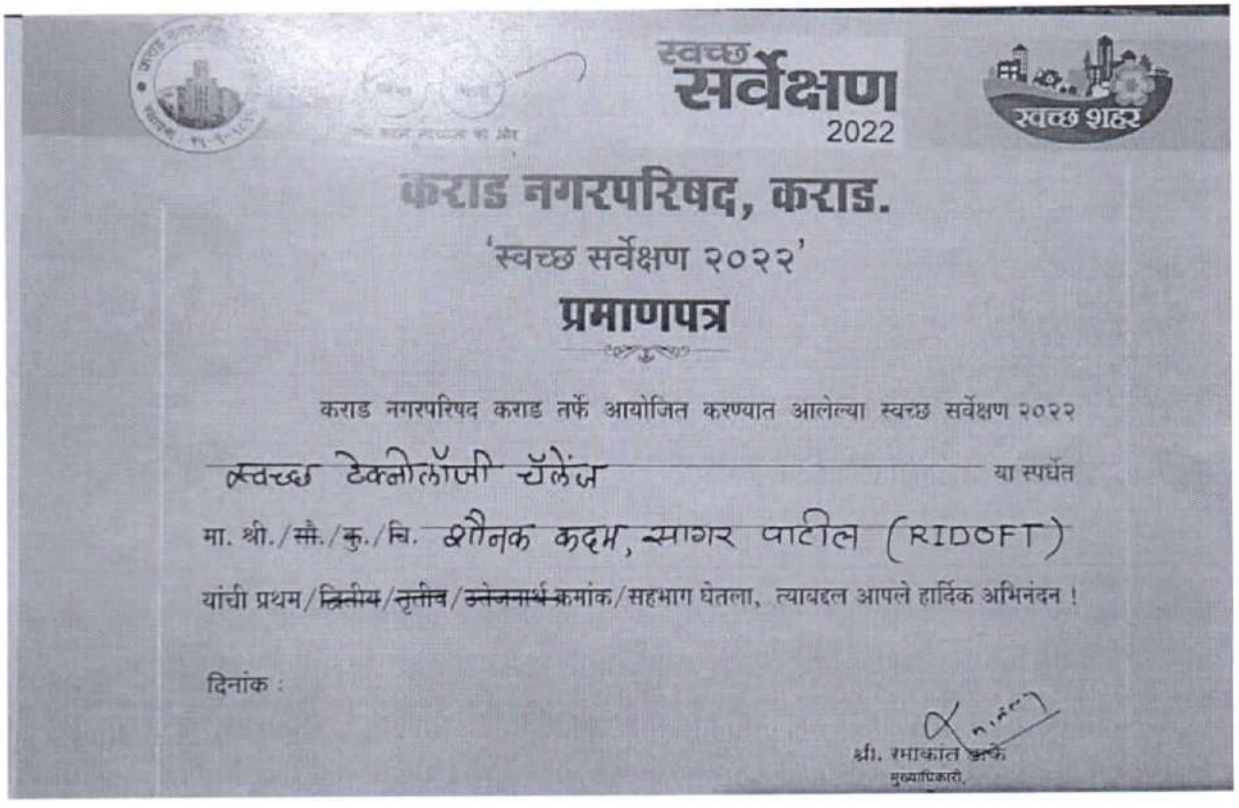
Introduction –

Swachh Survekshan, is an annual cleanliness survey conducted by the Ministry of Housing and Urban Affairs, Government of India. The survey aims to assess and rank cities and towns based on their cleanliness, sanitation, and waste management practices. It plays a crucial role in promoting the Swachh Bharat Abhiyan (Clean India Mission) initiated by the Government of India.Karad Municipal council undertaken cleanliness surveys or initiatives to assess and improve the cleanliness and sanitation conditions in their respective areas.

Description -

On 14th January, 2022, faculty of YCA, Satara, Ar.Shaunak Kadam, who is founder of RIDOFT SUSTAINABLE ENVIRONS PVT.LTD had awarded for his participation in Swaccha Sarvekshan-2022 by Karad Municipal Council. The award recognizes Ar. Shaunak Kadam's exemplary contributions to promoting cleanliness, sanitation, and sustainable practices in the region. We congratulate Ar. Shaunak Kadam on this well-deserved recognition and appreciate his relentless efforts towards creating cleaner and more sustainable environments. His dedication and leadership serve as an inspiration for the architectural community and beyond. Ar. Shaunak Kadam remains committed to his mission of promoting sustainable practices and creating environmentally responsible communities. He aims to continue his contributions to Swachh Bharat Abhiyan and work towards achieving the Sustainable Development Goals.

Yashoda College of Architecture Satara



स्वच्छ सर्वेक्षण 2022

स्वच्छ शहर

कराड नगरपरिषद, कराड.

'स्वच्छ सर्वेक्षण २०२२'

प्रमाणपत्र

कराड नगरपरिषद कराड तर्फे आयोजित करण्यात आलेल्या स्वच्छ सर्वेक्षण २०२२

स्वच्छ टेक्नोलॉजी चॅलेंज या स्पर्धेत

मा. श्री./~~सौ.~~/कु./चि. शौनक कदम, सागर पाटील (RIDOFT)

यांची प्रथम/~~द्वितीय~~/~~तृतीय~~/~~उत्तेजनार्थ~~ क्रमांक/सहभाग घेतला, त्याबद्दल आपले हार्दिक अभिनंदन !

दिनांक :

श्री. रमाकांत डाके
मुख्याधिकारी.

Certificate achieved by RIDOFT SUSTAINABLE ENVIRONS PVT.LTD

Prepared By: Ar.Priyanka Patil

Yashoda College of Architecture Satara

O3 Spaces
Architects and Design Consultants
Email: o3spaces.aec@gmail.com
Ph.No. +9970015551
Office: Wadhe-phata, Satara

GSTIN: 27AAGFO4112P1Z0

O3 Spaces

Policy Document

Environment and Energy usage Certificate

Introduction:

Our auditing agency recognizes the importance of environmental sustainability and energy conservation. We believe that it is our responsibility to actively promote sustainable practices among our clients and stakeholders. As part of our commitment to environmental protection and energy efficiency, we have developed a policy for Environment and Energy Usage Certificate.

Policy Statement:

Our auditing agency is committed to reducing Environmental Impact and promoting Energy Efficiency. We aim to achieve this by conducting Audits that assess the Environmental performance and Energy usage of our clients. The purpose of these Audits is to help clients identify areas where they can improve their Environmental Sustainability and Energy Efficiency, and to develop strategies to reduce their Carbon footprint.

Objectives:

Our objectives for Environment and Energy Usage Certificate are as follows:

1. To promote Environmental Sustainability and Energy Efficiency among our clients.
2. To help our clients reduce their Carbon footprint and mitigate their impact on the Environment.
3. To comply with relevant Environmental Legislation and Regulations.
4. To promote Energy-efficient technologies and practices.
5. To develop and implement Sustainable strategies for our own operations.

Scope:

This policy applies to all audits conducted by our agency, where Environmental Sustainability and Energy Efficiency are relevant factors.

Procedure:

Our agency follows the following procedures to implement the Environment and Energy Usage Certificate policy:

1. We conduct an audit of the client's operations, including their Energy usage and Environmental impact.
2. We provide the client with a detailed Report that identifies areas where they can improve their Environmental Sustainability and Energy Efficiency.
3. We provide Recommendations for strategies and technologies that the client can implement to reduce their Carbon footprint and improve Energy Efficiency.
4. We issue an Environment and Energy Audit Certificate to the client, which acknowledges their efforts to improve their environmental performance and energy efficiency.

Resources:

Our agency requires the following resources to implement the Environment and Energy Usage Certificate policy:

1. Trained auditors with knowledge of Environmental Sustainability and Energy Efficiency.
2. Access to relevant Environmental Legislation and Regulations.
3. Access to information on Energy-Efficient technologies and practices.

Responsibilities:

All employees of our agency are responsible for ensuring compliance with this policy. Specific responsibilities are as follows:

1. Auditors will ensure that all audits are conducted in accordance with this policy.
2. The management team will provide the necessary resources and support for the implementation of this policy.
3. The quality assurance team will ensure that all audits comply with this policy.

Conclusion:

Our agency is committed to promoting Environmental Sustainability and Energy Efficiency through our Environment and Energy Audit Certificate policy. We believe that by encouraging our clients to reduce their Carbon footprint and adopt Sustainable practices, we can contribute to a more Sustainable future.

Environmental and Green Audit Report

For

Yashoda Shikshan Prasarak Mandal's
Yashoda College of Architecture, Satara
A.Y.- 2021-22

Submitted by:
Ar. Swarali D. Sagare
O3 Spaces
Architects and Environment Consultants
o3spaces.aec@gmail.com
+91-9970015551
B.Arch | M.Arch | IGBC AP
(Indian Green Building Council- Accredited Professional)

O3 Spaces
Architects and Design Consultants
Email: o3spaces.aec@gmail.com
Ph No. +9970015551
Office: Wadhe-phata, Satara

GSTIN: 27AAGFO4112P1Z9

O3 Spaces

Date: 26th July 2021

CERTIFICATE

This is to certify that we have conducted Environmental and Green Audit at **Yashoda Shikshan Prasarak Mandal, Satara in the A.Y.- 2020-21**
The College has adopted following Energy Efficient sustainable practices:

- Usage of Energy Efficient LED Fittings
- Maximum usage of Day Lighting
- Installation of Roof Top Solar Hot Water System
- Installation of Roof Top Solar PV Plant
- Green Campus
- Waste Segregation
- Rain Water Harvesting System

We appreciate the support of Management, involvement of faculty members and students in the process of making the Campus Energy Efficient.

Ar. Swarali D. Sagare
O3 Spaces
Architects and Environment Consultants
o3spaces.aec@gmail.com
+91-9970015551
B.Arch | M.Arch | IGBC AP
(Indian Green Building Council- Accredited Professional)

ACKNOWLEDGEMENT

We at O3 Spaces- Architects and Environment Consultants, Wadhe, Satara- express our sincere gratitude to the management and coordinating staff of **Yashoda Shikshan Prasarak Mandal, Satara** for awarding us the assignment of Energy and Green Audit of their College campus.

We are very much thankful to

1) Prof. Dasharath Sagare, Founder and President, YSPM, Satara
2) Prof. Ajinkya Sagare, Vice President, YSPM, Satara
3) Dr. V.K.Redasani, Director, YTC, Satara
4) Ar. Suhas Talekar, Principal, Yashoda College of Architecture, Satara
5) Mr. Ganesh Suravase, Registrar, YSPM, Satara

for giving us opportunity to conduct detailed energy audit of the institute and provide all the required data and information promptly for the smooth conduction of detailed energy and green audit.

We are very much grateful to Prof. R.D.Mohite and peer team staff who accompanying complete day of visit and showing each and every facility/appliances very enthusiastically at the Yashoda Shikshan Prasarak Mandal, Satara Campus.

We are also thankful to various Head of Departments, IQAC Coordinator & other Staff members for helping us during the field measurements and other data collection.

We are also thankful to all the technical staff and office staff for helping during the measurements at the electrical distribution center.

Content

Introduction to the project

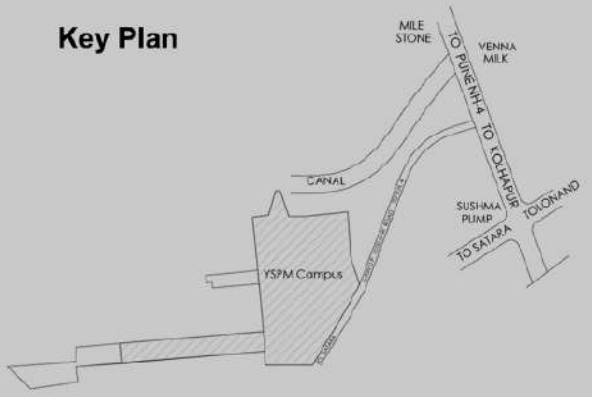
About Yashoda Shikshan Prasarak Mandal:

Yashoda Shikshan Prasarak Mandal (YSPM), is a glorious educational campus spread out in 12 Acres in Satara district. YSPM has been committed to education society since a decade. The institute has made a tremendous progress and always risen the graph in a positive direction. The Sanstha was established by our founder Prof. D.B.Sagare, whose great visionary and success in the field has led us to this level.

Purpose of the project:

The energy upgradation of existing YSPM campus to improve energy performance plays a key role in setting a benchmark for a more energy conscious society. Energy efficiency in a building also connects the missing link between social and health benefits.

Key Plan



Area Statement:

Net Plot Area= 46,780 sq.m
Building type= Educational purpose
Allowable gr. cover= 50%= 23,390 sq.m
Proposed gr. cover area= 12048sq.m
Proposed B/UP of all floors= 35833 sq.m
Allowable FSI= 1.00
Consumed FSI= 0.964

Study area

ADJ. GAT NO.- 262
ADJ. GAT NO.- 261
ADJ. GAT NO.- 267
ADJ. GAT NO.-245
ADJ. GAT NO.-246
Architecture/ CBSE block
Canteen
Engineering/ Polytechnic block
PLAYGROUND 40 % AREA 14023.40 - SQ.M.
Entrance /Exit
Main Entrance /Exit
Pharmacy block
Girls Hostel
12.00 M WIDE FUTURE ROAD
12.00 M WIDE EXISTING ROAD
12.00 M WIDE PROPOSED ROAD
EXISTING 12.0 M WIDE ROAD
PLAYGROUND 5800.00 SQ.M.
PROPOSED BOYS HOSTEL
PROPOSED GIRLS HOSTEL
PARKING AREA

Main Electric supply meter
Sub-meter (electric)
Bore well
Main water pump (5HP)
sub water pump (1HP)
D.G.

N
W
E
S

Site Plan

Occupancy:
Existing Condition Calculations

The Energy Report generated is for Architecture Block, Canteen and Girls Hostel Block. As per, the foot fall is divided in 3 blocks-

1. Architecture
2. Canteen
3. Girls Hostels

Architecture block = 250 people
Canteen block = 150 people
Girls Hostel (2 blocks) = 250+90 = 340 people

Total number of people = 250+150+340
= 740 people

Occupancy Ratio

Male- 50% female -50% (considered as per standard)

Green Audit for AY-2020-21

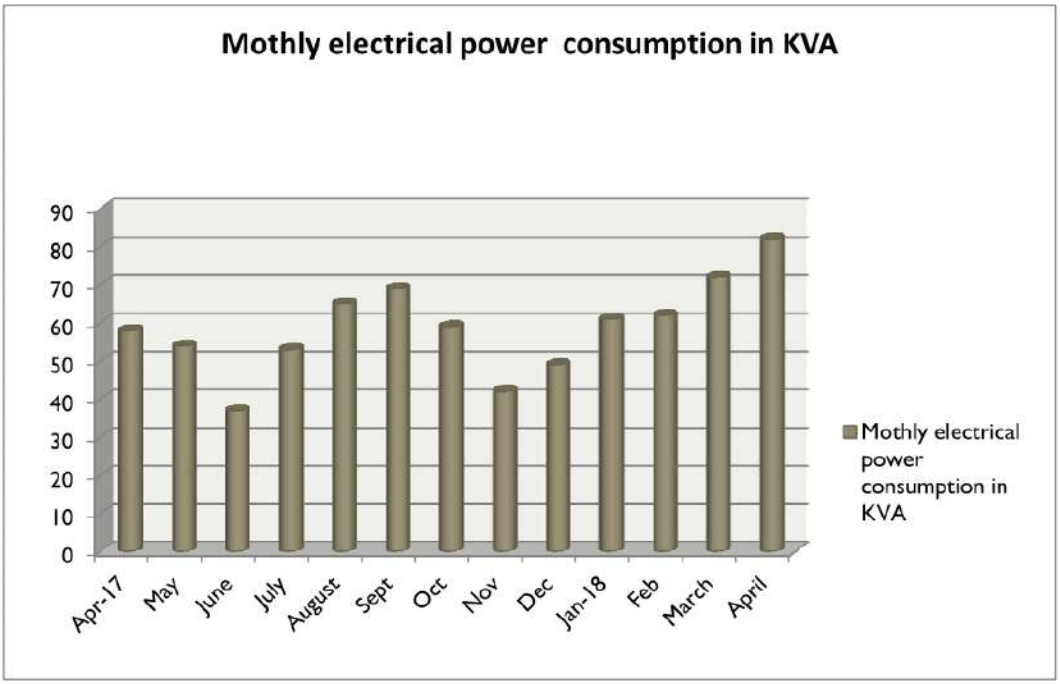
YSPM's Yashoda Technical Campus, Yashoda College of Architecture is one of the leading higher educational Institution of district Satara and affiliated to Shivaji University. It has been providing quality education to the rural students of Satara & other region of western Maharasthra. YSPM's Yashoda Technical Campus is having beautiful green campus and a highly greenery maintenance college in Wadhe Dist. Satara. The college has been reaccredited with „ B+ " Grade by National Assessment and Accreditation Council (NAAC), Bangalore.

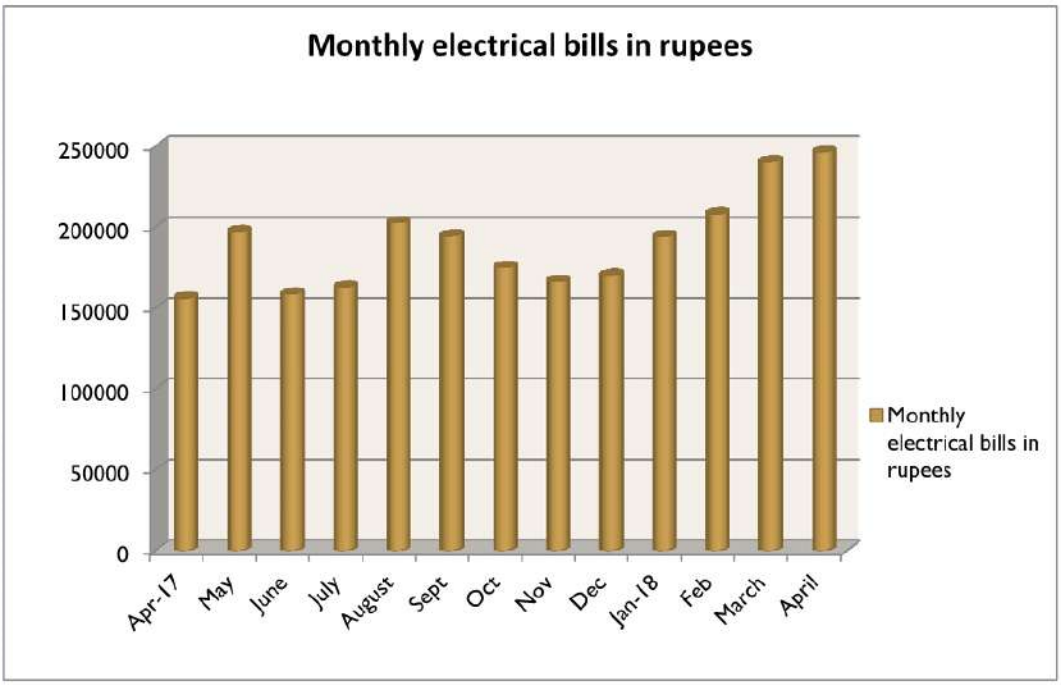
We have prepared a green audit report after visiting the college campus by our team. This green audit report is based on the following major points for Yashoda College of Architecture, Satara.

- Energy Calculations
- Plantation in the campus
- Carbon accounting
- Water audit
- Ground Water level
- Waste Segregation
- Suggestions and Recommendations

1) Energy Calculations:

(Existing condition)





1) Energy Calculations:

(Existing condition)

Lighting										
	INTERIOR						EXTERIOR			
	Tube 40W	LED Tube 20W	LED Panel 9 W	LED Panel 15W	LED Panel 18 W	CFL Lamp 18 W	20 W LED	65 W LED	35 W LED	5000 W Neon
Quantity	406	361	150	34	72	148	10	15	2	1
Total Watt	16240	7220	1350	510	1296	2664	200	975	70	5000
Duration For 265 days	4 hours/day						10 hours/day			

Total annual energy consumption (lighting)
= (29,280 W X 4 hours X 265 days) + (6,245 W X 10 hours X 265 days)
= 3,10,36,800 + 1,65,49,250
= 4,75,86,050 W i.e. 47586 KW

Fans			
	Ceiling fan 60W	Table/Wall fan 40W	Exhaust fan 40W
Quantity	758	9	21
Total Watt	45480	360	840
Duration For 265 days	4 hours/day		8 hours/day

Total annual energy consumption (fan)
= (45,840 W X 4 hours X 265 days) + (840 W X 8 hours X 265 days)
= 4,85,90,400 + 17,80,800
= 5,03,71,200 W i.e. 50371 KW

AC	
	Split AC 1500W
Quantity	17
Total Watt	25500
Duration	8 hours daily in summers, 4 hours in winters and in rainy seasons

In summers: 25500 W x 8 hours x 90 days = 1,83,60,000 W
In winter and rainy seasons : 25500 W x 4 hours x 30 days = 30,60,000 W
Total annual energy consumption(AC): 2,14,20,000 W = 21,420 KW

1) Energy Calculations:

(Existing condition)

Office equipment				
	Computers 100W	Xerox machine 250W	Projector 230W	Scanner 250W
Quantity	553	06	20	04
Total Watt	55300	1500	4600	1000
Duration	8 hours / day For 265 days	2 hours / day For 265 days	2 hours / day For 265 days	1 hour/ day For 265 days
Annual duration	11,72,36,000 W	7,95,000 W	24,38,000 W	2,65,000 W
Total annual energy consumption (Office equipment) = 12,07,34,000 W = 1,20,734 KW				

Pantry Equipments						
	Water purifier 250W	Oven 1200 W	Fridge 1000W	Hot Plate 2000W	Mixer 750W	Grinder 1500W
Quantity	1	1	3	2	1	1
Total Watt	250	1200	3000	4000	750	1500
Duration	8 hrs/day for 265 days	4 hrs/day for 265 days	24 hrs/day for 265 days	6hrs/ day for 265 days	4hrs/day for 265 days	4hrs/day for 265 days
Annual duration	530 KW	1272 KW	19080 KW	6360 KW	795 KW	1590 KW
Total energy annual consumption (Pantry equipments) – 29,627 KW						

Total Annual Energy Consumption		
	W	KW
Lighting	4,75,86,050	47,586
Fan	5,03,71,200	50,371
AC	2,14,20,000	21,420
Office equipments	12,07,34,000	1,20,734
Pantry equipments	29,627,000	29,627
Total	26,97,38,250	2,69,738

1) Energy Calculations:

(Existing condition)

To find the total consumption by LED:

LED usage in interior
= (Total interior lighting wattage) – (lighting power by Tube l + lighting power by CFL)
= 29280 – (16240 + 2664)
= 10376

LED usage in Exterior
= (Total exterior lighting wattage) – (neon lighting)
= 6245 – 5000
= 1245

Therefore,
Total LED consumption i.e. lighting power requirement met through LED bulbs
= (Interior lighting power) + (Exterior lighting power)
= (10376X4X265) + (1245X10X265)
= 1,09,98,560 + 32,99,250
= 1,42,97,810 W
= 14,297 KW

Thus,
Percentage of lighting power requirements met through LED bulbs
= Lighting power req. met through LED bulbs X 100
Total lighting power requirement
= (14297/47586) X 100
= 30%

Percentage of lighting power requirements met through LED bulbs = 30%

2) Plantation in the campus

Plantation is playing very important role in the green audit and helping to save environment from damage. The campus plantation is very diverse and well maintained.

The different species are cultivated to increase greenery of the campus. The species included Trees, Shrubs, Herbs, Climbers, ornamentals etc. After a daylong survey and records about the plantation in the campus is prepared which is per following table.

Biodiversity in YSPM's Yashoda Technical Campus, Satara (List of Plants)							
Sr. No.	Common Name	Family	Botanical name	Quantity	Height (m)	Diameter(m)	Age (Yrs)
1	Arjuna	Combretaceae	Terminalia arjuna	42	7-8	2	8
2	Alstonia	Apocynaceae	alstonia scholaris	70	7-8	4	8
3	Bottle palm	Arecaceae	Hyophorbe lagenicaulis	82	9-10	3	20
4	Buch	Bignoniaceae	Millingtonia hortensis	28	9-10	3	9
5	Bel	Rutaceae	Aegle marmelos	2	6-7	1	7
6	Ashoka	Fabaceae	Saraca asoca	50	9-10	1	1
7	Brassia	Araliaceae	Brassia actinophylla	15	6-7	3	7
8	Cadamba	Rubiaceae	Neolamarckia cadamba	42	9-10	4	10
9	Tamarind	Fabaceae	Tamarindus indica	14	6-7	3	7
10	Coconut	Arecaceae	Cocos nucifera	45	8-9	3	7
11	Chiku	Sapotaceae	Manilkara zapota	20	3-4	2	6
12	Cordia	Boraginaceae	Cordia sebestena	55	5-6	2	6
13	Areca palm	Arecaceae	Dypsis lutescens	12	4-5	2	7
14	Apta	Fabaceae	Bauhinia racemosa	29	7-8	4	9
15	Bakul	Sapotaceae	Mimusops elengi	27	6-7	1	7
16	Ficus black	Moraceae	Ficus benjamina	70	7-8	2	8
17	Conocarpus	Combretaceae	Conocarpus	15	6-7	2	6
18	Guava	Myrtaceae	Psidium guajava	12	7-8	1	6
19	Baheda	Combretaceae	Terminalia bellirica	24	7-8	3	9
20	Neem	Meliaceae	Azadirachta indica	27	7-8	4	8
21	Mulberry	Moraceae	Morus alba	22	7-8	2	7
22	Kanchan	Fabaceae	Bauhinia variegata	40	7-9	2	8
23	Tamhan	Lythraceae	Lagerstroemia speciosa	47	8-9	2	6
24	Madagascar almond	Combretaceae	Terminalia mantaly	34	9-10	4	10
25	Palas	Fabaceae	Butea monosperma	7	7-8	2	8
26	Parijat	Oleaceae	Nyctanthes arbor-tristis	3	5-6	2	6
27	Mango	Anacardiaceae	Mangifera indica	62	4-5	2	7
28	Chafa	Apocynaceae	Plumeria	22	5-6	2	6
29	Karanja	Fabaceae	Millettia pinnata	16	7-8	2	9
30	Peepal	Moraceae	Ficus religiosa	29	7-8	3	7

Table 1: Biodiversity in YSPM'S Yashoda technical Campus, Satara (List of Plants):

31	Sitaphal	Annonaceae	Annona reticulata	6	3-4	1	5
32	Putranjiva	Putranjivaceae	Putranjiva	34	6-7	2	8
33	Nilmohar	Bignoniaceae	Jacaranda mimosifolia	27	8-9	3	9
34	Sonmohar	Caesalpiniaceae	Peltophorum pterocarpum	30	8-9	4	9
35	Gulmohar	Fabaceae	Delonix regia	42	9-10	5	9
36	Kashid	Legume	Senna siamea	27	7-8	4	7
37	Morawala	Phyllanthaceae	Phyllanthus emblica	22	5-6	2	6
38	Jamun	Myrtaceae	Syzygium cumini	75	7-8	3	7
39	jackfruit	Moraceae	Artocarpus heterophyllus	7	7-8	2	7
40	Spathodea	Bignoniaceae	Spathodea campanulata	26	7-8	3	8
41	Kailashpati	Lecythidaceae	Couroupita guianensis	6	6-7	3	7
42	Supari	Arecaceae	Areca catechu	10	3-4	1	4
43	Umbar	Moraceae	Ficus racemosa	12	7-8	3	8
44	Khaya	Meliaceae	Khaya	15	7-8	3	7
45	Tabebuia	Bignoniaceae	tabebuia	24	6-7	2	6

Table 1: Biodiversity in YSPM'S Yashoda technical Campus, Satara (List of Plants):

Photo-1: *Plantation at Gate 01 (entrance) of YSPM'S Yashoda technical Campus, Satara*

Photo-2: *Playground surrounded by various tress of YSPM'S Yashoda technical Campus, Satara*

Photo-3: *Palm species trees in front of pharmacy college of YSPM'S Yashoda technical Campus, Satara*

Photo-4: *Various large canopy tress alongside the internal road of YSPM'S Yashoda technical Campus, Satara*

Photo-5: *Palm species trees & ground covers in front of central library of YSPM'S Yashoda technical Campus, Satara*

Photo-6: *Medicinal plants, fruit trees , shrubs & flowering plants at medicinal garden of YSPM'S Yashoda technical Campus, Satara*

Photo-7: *Large canopy trees at entrance of medicinal garden of YSPM'S Yashoda technical Campus, Satara*

Photo-8: Various large canopy shady tress alongside the main entry road of YSPM'S Yashoda technical Campus, Satara

3) 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 operating various electrical gadgets.

We herewith furnish the details of electrical Energy consumption consumer number wise as under

2.1.1.**Month wise Consumption of Electrical Energy :190199026230**

Sr. No	Month	kWh
1.	Jun-20	10604
2.	Jul-20	11347
3.	Aug-20	10736
4.	Sep-20	9397
5.	Oct-20	11026
6.	Nov-20	7882
7.	Dec-20	11026
8	Jan-21	13298
9.	Feb-21	11995
10.	Mar-21	14957
11.	Apr-21	10835
12.	May-21	8399
13.	Jun-21	7923
14.	Average	10725
15.	Max	13298
16.	Min	7882

2.1.2 Basis for computation of CO2 Emissions:

The basis of Calculation for CO2 emissions due to Electrical Energy are as under

- 1 Unit (kWh) of Electrical Energy releases 0.8 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.

2.1.3 Month wise CO2 Emissions:190199026230

Sr. No	Month	Electrical Energy consumed, kWh	CO2 Emissions due to Electricity, MT
1.	Jun-20	10604	8.48
2.	Jul-20	11347	9.08
3.	Aug-20	10736	8.59
4.	Sep-20	9397	7.52
5.	Oct-20	11026	8.82
6.	Nov-20	7882	6.31
7.	Dec-20	11026	8.82
8	Jan-21	13298	10.64
9.	Feb-21	11995	9.60
10.	Mar-21	14957	11.97
11.	Apr-21	10835	8.67
12.	May-21	8399	6.72
13.	Jun-21	7923	6.34
14	Total	139425	111.54
15.	Average	10725	8.58
16.	Max	13298	10.64
17.	Min	7882	6.31

2.2.1 Month wise Consumption of Electrical Energy :190199026230

Sr. No	Month	kWh
1.	Jun-20	10604
2.	Jul-20	11347
3.	Aug-20	10736
4.	Sep-20	9397
5.	Oct-20	11026
6.	Nov-20	7882
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2.2.2 Basis for computation of CO2 Emissions:

The basis of Calculation for CO2 emissions due to Electrical Energy are as under

- 1 Unit (kWh) of Electrical Energy releases **0.8 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

2.2.3 Month wise CO2 Emissions:190199026230

Sr. No	Month	Electrical Energy consumed, kWh	CO2 Emissions due to Electricity, MT
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14	Total	139425	111.54
15.	Average	10725	8.58
16.	Max	13298	10.64
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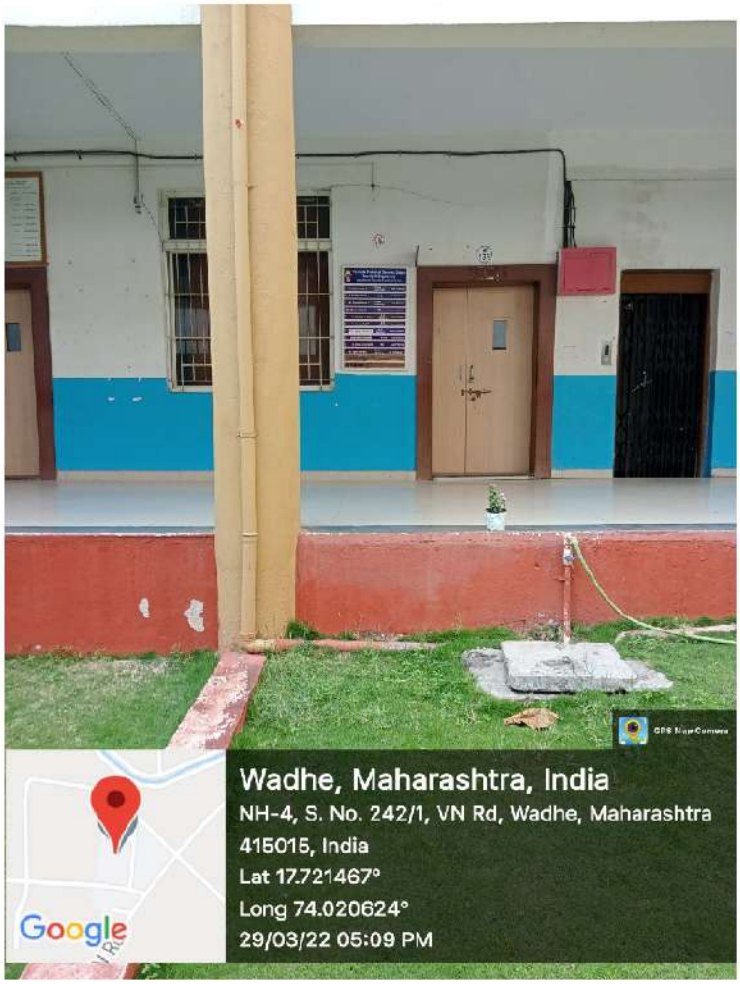
4) Waste Segregation:


Dry
Waste
READER
LEADER
Wet
Waste

5) Rain Water Harvesting System:

5) Rain Water Harvesting System:



Chapter III

Suggestions and Recommendations

Following are the suggestions and actions on the basis of green audit to implement in the campus on the basis of funds availability and institute preferences.

Green Audit: Environment conservation opportunities:

- It is suggested to install Energy metering in the campus catering to all the building level, in order to monitor the Energy consumption
- It is suggested to install Water metering in the campus catering to all the building level Water tanks, in order to monitor the Water consumption
- Water sprinklers must be in use for maintaining the garden which will result in saving of water and power.
- Rooftop Solar water PV Panels for Main buildings and Rooftop Solar Water heaters above the Hostel to be installed for Energy Conservation
- Solar Street lights to be installed in the campus for reducing Energy consumed by the exterior lighting
- Working Waste Disposal System to be carried out in the campus for reducing waste generation
- Appoint some authorized agency to collect plastic, E-waste and other non-degradable waste from effective disposal.
- It is suggested to display Energy conservation slogans boards in the college campus and classroom to make awareness about importance of energy saving.

WASH INNOVATION HUB

Memorandum of Understanding (MoU)

between

WASH Innovation Hub

&

Ridoft Sustainable Environs Pvt. Ltd.

for making India garbage-free, clean and water-secure through innovations.

6th May, 2022

Shri Arvind Kumar, IAS
Special Chief Secretary,
MA&UD, Government of Telangana

Prof. V. Srinivas Chary,
Chief Executive Officer
WASH Innovation Hub

Ridoft Sustainable Environs Pvt. Ltd.
Start-up/Organization

An Initiative of Municipal Administration & Urban Development Department, Government of Telangana
in partnership with Administrative Staff College of India.

स्वच्छ सर्वेक्षण 2022

स्वच्छ शहर

कराड नगरपरिषद, कराड.

'स्वच्छ सर्वेक्षण २०२२'

प्रमाणपत्र

कराड नगरपरिषद कराड तर्फे आयोजित करण्यात आलेल्या स्वच्छ सर्वेक्षण २०२२

~~स्वच्छ~~ टेक्नोलॉजी चॅलेंज या स्पर्धेत

मा. श्री./~~सौ.~~/कु./चि. शौनक कदम, सागर पाटील (RIDOFT)

यांची प्रथम/~~द्वितीय~~/~~तृतीय~~/~~उत्तेजनार्थ~~ क्रमांक/सहभाग घेतला, त्याबद्दल आपले हार्दिक अभिनंदन !

दिनांक :

श्री. रमाकांत डाके
मुख्याधिकारी,