



Ashokdada Sable Law College

LL.B. 3 Year / LL.B. 5 Year / LL.M.

1st. Mangaon, Dist. Raigad. 402 104

ashokdadasablelawcollege@gmail.com

Adv. Vinod Ghayal
Chairman

Shri. Rajiv Sable
President

Shri. Krishna Gandhi
Secretary

Dr. Sonali Burte
Principal

Ref.....

Date : / /20

2023-24

ASHOKDADA SABLE LAW COLLEGE

Prepared by:

Vrindavan Landscape & Ecological Solutions

ENERGY AUDIT




Principal
Ashokdada Sable Law College
Mangaon-Raigad



Ashokdada Sable Law College

LL.B. 3 Year / LL.B. 5 Year / LL.M.

1st, Mangaon, Dist. Raigad. 402 104

ashokdadasablelawcollege@gmail.com

Adv. Vinod Ghayal
Chairman

Shri. Rajiv Sable
President

Shri. Krishna Gandhi
Secretary

Dr. Sonali Burte
Principal

Ref.....

Date : / /20

ENERGY AUDIT REPORT

2023-24



ASHOKDADA SABLE LAW COLLEGE

Juna Mangaon Rd, next to District court, Mangaon, Maharashtra 402104



Signature

Principal

Prepared for
Ashokdada Sable Law College
Mangaon-Raigad

Vrindavan Landscape & Ecological Solutions

20/G, Malvankar House, Worli Fort Mangaon -400030



भारत सरकार
Government of India
सूक्ष्म, लघु एवं मध्यम उद्यम मंत्रालय
Ministry of Micro, Small and Medium Enterprises

UDYAM-MH-19-0065047



Ashokdada Sable Law College

LL.B. 3 Year / LL.B. 5 Year / LL.M.

1st, Mangaon, Dist. Raigad. 402 104

ashokdadasablelawcollege@gmail.com

Adv. Vinod Ghayal
Chairman

Shri. Rajiv Sable
President

Shri. Krishna Gandhi
Secretary

Dr. Sonali Burte
Principal

Ref.....

Date : / /20

Index

Contents

1.	INTRODUCTION	5
2.	OBJECTIVES.....	6
3.	INTERPRETATION OF COLLEGE ENERGY MANAGEMENT SYSTEM (CEMS).....	7
4.	COLLEGE GOOGLE LOCATION	8
5.	DESCRIPTION OF COLLAGE CAMPUS	9
6.	ENERGY AUDIT: METHODOLOGY	10
7.	FINDINGS	11
7.1	VAMPIRE LOADS FINDINGS:.....	12
7.2	LIGHTING:	12
7.3	FAULTY LIGHTS:	13
8.	SUMMARY OF RECOMMENDATIONS	16
9.	ENERGY SAVING ACTION PLAN BY COLLEGE:	18
9.1.1	REDUCING VAMPIRE LOADS:.....	18
9.1.2	LIGHTING:	18
9.1.3	SOURCE OF NATURAL LIGHT:	19
9.1.4	VENTILATION:	20
9.1.5	AIR CONDITIONERS:.....	21
9.1.6	PETROL GENERATOR:	22
9.1.8	OFFICE EQUIPMENT:.....	24
9.1.9	SOLAR LIGHTS:	25
9.1.10	WATER CONSERVATION:	26
	OPEN WELL:	27
	HISTORICAL DATA ANALYSIS	28



[Signature]
Principal
Ashokdada Sable Law College
Mangaon-Raigad





17 July 2019

Ashokdada Sable Law College

LL.B. 3 Year / LL.B. 5 Year / LL.M.

1st, Mangaon, Dist. Raigad. 402 104

ashokdadasablelawcollege@gmail.com

Adv. Vinod Ghayal
Chairman

Shri. Rajiv Sable
President

Shri. Krishna Gandhi
Secretary

Dr. Sonali Burte
Principal

Ref.....

Date : / /20

11.	INVENTORY DETAILS OF LIGHT UNITS.....	29
12.	POWER CONSUMPTION DATA.....	30
13.	WATER MANAGEMENT: Error! Bookmark not defined.	
14.	Energy Management Workshop and Training:.....	31
15.	PHOTO PLATES:(Energy Management System).....	33



SAB

Principal

Ashokdada Sable Law College
Mangaon-Raigad





Ashokdada Sable Law College

LL.B. 3 Year / LL.B. 5 Year / LL.M.

1st, Mangaon, Dist. Raigad. 402 104

ashokdadasablelawcollege@gmail.com

Adv. Vinod Ghayal
Chairman

Shri. Rajiv Sable
President

Shri. Krishna Gandhi
Secretary

Dr. Sonali Burte
Principal

Ref.

Date : / /20

1. INTRODUCTION

Energy audit helps to understand more about the ways energy is used in any plant/ Institute and helps in identifying areas where waste may occur and scope for improvement exists.

Energy audit is the most efficient way to identify the strength and weakness of energy management practices and to find a way to solve problem. Energy audit is one kind of professional approach towards a responsible way in utilizing economic, financial, and social and natural resources. Energy audits can “add value” to the management approaches being taken by the institute and is a way of identifying, evaluating the system.

The “**Energy Audit**” carried out at the site to find loopholes in the energy consumption pattern for **ASHOKDADA SABLE LAW COLLEGE**. An audit report has been prepared as per the need and the requirement of the college.

Improving energy efficiency is the most cost-effective way to reduce energy-related emissions, improve economic competitiveness and increase energy security.

Energy audit:

An assessment of the energy needs and efficiency of a building or buildings used to find the inefficiencies, done through an inspection survey and an analysis of the energy use, to identify improvements that need to be made to increase energy efficiency. This is often the first step in identifying opportunities to reduce energy expenses and carbon footprint.




Principal
Ashokdada Sable Law College
Mangaon-Raigad





Ashokdada Sable Law College

LL.B. 3 Year / LL.B. 5 Year / LL.M.

1st, Mangaon, Dist. Raigad. 402 104

ashokdadasablelawcollege@gmail.com

Adv. Vinod Ghayal
Chairman

Shri. Rajiv Sable
President

Shri. Krishna Gandhi
Secretary

Dr. Sonali Burte
Principal

Ref.....

Date : / /20

College Energy Management System (CEMS)

Making a framework of practical procedures and processes (monitoring, control) for buildings or organizations to achieve best practices relating to energy efficiency, use and consumption, through the setting and delivery of energy targets. The energy management process starts with an energy audit to find opportunities to improve efficiency, then putting it into action with a number of strategies and then tracking the progress of the made changes. The CEMS is usually aligned with ISO 50001, providing a means of validating a best practice approach and recognizing an organization's commitment to energy performance management and improvement.

2. OBJECTIVES

The Energy Audit was defined to meet the following objectives:

- Conduct a simple Walk-Through audit or observation of the energy consumption of electrical appliances within the college building.
- Review and analyze energy usage history to create a baseline for which savings can be measured in the audited building.
- Determine what can be done to reduce energy consumption throughout the college buildings and what options are available for system improvements.
- Identify and evaluate measures that could improve the environmental performance of the buildings and provide recommendations.



GFAR
Principal
Ashokdada Sable Law College
Mangaon-Raigad



Ashokdada Sable Law College

LL.B. 3 Year / LL.B. 5 Year / LL.M.

1st, Mangaon, Dist. Raigad. 402 104

ashokdadasablelawcollege@gmail.com

Adv. Vinod Ghayal
Chairman

Shri. Rajiv Sable
President

Shri. Krishna Gandhi
Secretary

Dr. Sonali Burte
Principal

Ref.....

Date : / /20

3. INTERPRETATION OF COLLEGE ENERGY MANAGEMENT SYSTEM (CEMS)

1. Energy Conservation means steps taken to reduce and to use as much energy as necessary through changing energy consumption behavior, e.g. Switching off lights when not in use.

Energy Efficiency means using less energy to provide the same service/output, e.g. Replacing inefficient light bulbs with efficient ones.

Faulty means an equipment not working or made correctly; having defects.

Potential savings means the actual reduction in operating expenses from the improved energy efficiency generated by an energy conservation or efficiency activity.

Retrofitting means upgrading an existing system to improve energy efficiency.

Tariff means the amount of money charge by the supplier (utility) per kWh for the use of electrical energy.

Vampire Load means the way power is consumed by electronic and electrical appliances while they are switched off or in standby mode (consuming electricity at a cost but not doing any work).




Principal
Ashokdada Sable Law College
Mangaon-Raigad





Ashokdada Sable Law College

LL.B. 3 Year / LL.B. 5 Year / LL.M.

1st. Mangaon, Dist. Raigad. 402 104

ashokdadasablelawcollege@gmail.com

Adv. Vinod Ghayal
Chairman

Shri. Rajiv Sable
President

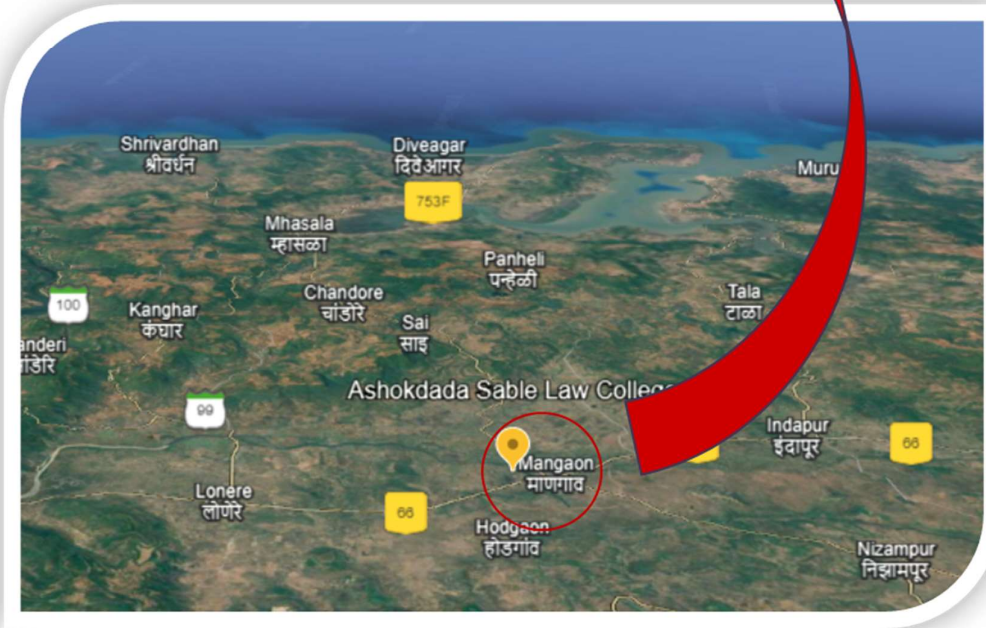
Shri. Krishna Gandhi
Secretary

Dr. Sonali Burte
Principal

Ref.....

Date : / /20

4. COLLEGE GOOGLE LOCATION



Sonali Burte
Principal
Ashokdada Sable Law College
Mangaon-Raigad



Ashokdada Sable Law College

LL.B. 3 Year / LL.B. 5 Year / LL.M.

1st, Mangaon, Dist. Raigad. 402 104

ashokdadasablelawcollege@gmail.com

Adv. Vinod Ghayal
Chairman

Shri. Rajiv Sable
President

Shri. Krishna Gandhi
Secretary

Dr. Sonali Burte
Principal

Ref.....

Date : / /20

5. DESCRIPTION OF COLLAGE CAMPUS

Being the prime institution of Raigad district, Mangaon Shikshan Prasarak Mandal started Law College "Ashokdada Sable Law College" in 2019.

Ashokdada Sable Law College Mangaon Raigad is a premier institute located in Maharashtra. The institute offers Degree courses including UG programs.

College has built up area is approx. 2320 sq. m. and surrounding area of 67895 sq. m with state-of-the-art infrastructure, well-furnished classrooms and seminar hall. College building comprises of three floors with well-maintained ladies and gents' washrooms. Water coolers are provided on every floor of college building. It is located in the rural area of Raigad district in Kokan region of Maharashtra state. The building has huge windows and corridors for excellent ventilation and natural light source.

Two lifts and one staircase for easy dispersal of children during any emergency. Each floor has washroom and washbasin with water filter (aqua guard) at each floor.

College has manual bell. Bells offer several advantages, including loud and clear sound, reliability, and adjustability, reduce electricity bill. Fire extinguisher at each floor near the staircase area, inverter and solar system, library with CCTV cameras all around the campus showing great security management



College campus



(Signature)

Principal

Ashokdada Sable Law College
Mangaon-Raigad



भारत सरकार
Government of India
सूक्ष्म, लघु एवं मध्यम उद्यम मंत्रालय
Ministry of Micro, Small and Medium Enterprises

UDYAM-MH-19-0065047



Ashokdada Sable Law College

LL.B. 3 Year / LL.B. 5 Year / LL.M.

1st, Mangaon, Dist. Raigad. 402 104

ashokdadasablelawcollege@gmail.com

Adv. Vinod Ghayal
Chairman

Shri. Rajiv Sable
President

Shri. Krishna Gandhi
Secretary

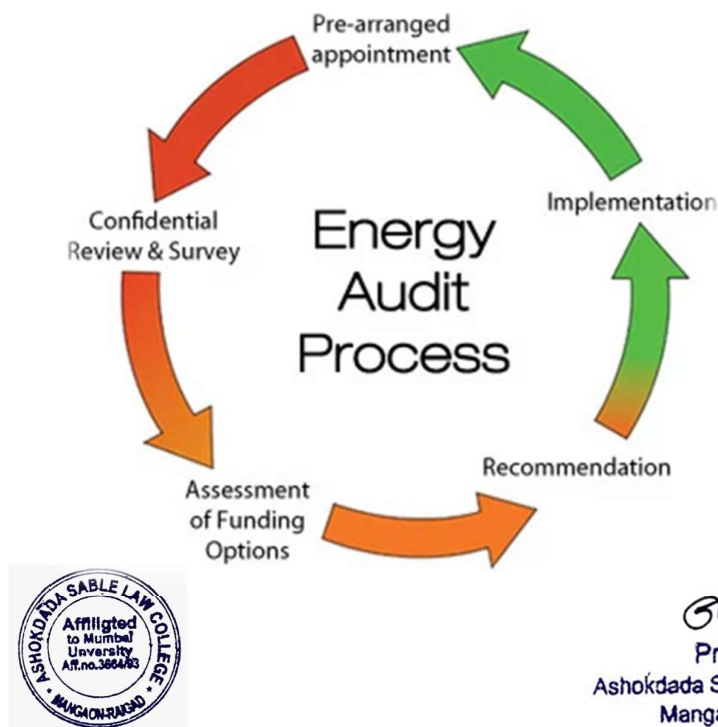
Dr. Sonali Burte
Principal

Ref.

Date : / /20

6. ENERGY AUDIT: METHODOLOGY

Energy Audit is the key to a systematic approach for decision-making in the area of energy management. It attempts to balance the total energy inputs with its use, and serves to identify all the energy streams in a facility. It quantifies energy usage according to its discrete functions. College campus energy audit is an effective tool in defining and pursuing comprehensive energy management programmed. As per the Energy Conservation Act, 2001, Energy Audit is defined as "the verification, monitoring and analysis of use of energy including submission of technical report containing recommendations for improving energy efficiency with cost benefit analysis and an action plan to reduce energy consumption".



SAB
Principal
Ashokdada Sable Law College
Mangaon-Raigad



Ashokdada Sable Law College

LL.B. 3 Year / LL.B. 5 Year / LL.M.

1st, Mangaon, Dist. Raigad. 402 104

ashokdadasablelawcollege@gmail.com

Adv. Vinod Ghayal
Chairman

Shri. Rajiv Sable
President

Shri. Krishna Gandhi
Secretary

Dr. Sonali Burte
Principal

Ref.....

Date : / /20

7. FINDINGS

7.1. Electricity:

ADS law college of commerce. Uses energy in the form of electricity purchased from Mahavitaran, Maharashtra state electricity board Mangaon, the college has sanctioned load 5.00 KW. Total billing amount has been found to be about INR 60580/- for 12 months analysis period from Jun – 2023 to March – 2024. The overall average energy charges as Rs. 7.55 per unit in last 11 months. The water pump bill is 22580 for 12 months.

BILLING HISTORY			
Bill Month	Units	Bill Demand(KVA)	Bill Amount
Mar-2024	1237	5	7429.94
Feb-2024	0	2	234.00
Jan-2024	1123	4	6855.21
Dec-2023	0	2	234.00
Nov-2023	0	2	234.00
Oct-2023	0	2	234.00
Sep-2023	53	3	933.30
Aug-2023	64	3	912.39
Jul-2023	209	3	1749.54
Jun-2023	0	2	255.13
May-	126	2	934.94
Apr-2023	130	3	1165.77



Signature
Principal
Ashokdada Sable Law College
Mangaon-Raigad





Ashokdada Sable Law College

LL.B. 3 Year / LL.B. 5 Year / LL.M.

1st, Mangaon, Dist. Raigad. 402 104

ashokdadasablelawcollege@gmail.com

Adv. Vinod Ghayal
Chairman

Shri. Rajiv Sable
President

Shri. Krishna Gandhi
Secretary

Dr. Sonali Burte
Principal

Ref.

Date : / /20

E-mail: mspxxxxxx@gmail.com	Activity : PWW PUMPING OF LOCAL SELF
Mobile No.: 90xxxxxx53	Meter No.: 039-03434473
Sanctioned Load (KW): 5.00 KW	Connected Load (KW) : 5.00 KW
Contract Demand (KVA): 4.00	50% of Con. Demand (KVA): 2.00
Tariff: 35-LT-III-A	DTC: 4805438
Dale of Connection: 04/04/2020	Category: Public Water Works
Supply at: LT	Elec. Duty: 49 PART H
Prev. Highest (Mth):	Prev. Highest Bill Demand (KVA):
Security Deposit Held Rs.: 6000.00	Addl. S.D. Demanded Rs.: 0.00
Bank Guarantee Rs. :	S D Arrears Rs.: 0.00
<p style="text-align: center;">Small Scale / Private Sector</p> <p style="text-align: center;">Maintain Harmonic distortion within limit as prescribed by IEEE STANDARD 519-1992 to avoid penalty</p> <p style="text-align: center;">Avail Power</p>	

7.1 VAMPIRE LOADS FINDINGS:

- Electronics appliances (computer, printer, etc.) are still ON even though they are turned off.
- Appliances on STANBY MODE are draining power even though they are not doing any use full task.
- Faulty light fittings which are left without bulb and faulty bulb which is intactare also vampire loads.

7.2 LIGHTING:

- Lighting is the most common load which is used in all the rooms and outdoors. Here are some of the aspects and faults that were discovered:
- It has been observed there are a lot of unnecessary lights in one single room
- Too many lights are assigned to 1 switch.




 Principal
 Ashokdada Sable Law College
 Mangaon-Raigad



Ashokdada Sable Law College

LL.B. 3 Year / LL.B. 5 Year / LL.M.

1st, Mangaon, Dist. Raigad. 402 104

ashokdadasablelawcollege@gmail.com

Adv. Vinod Ghayal
Chairman

Shri. Rajiv Sable
President

Shri. Krishna Gandhi
Secretary

Dr. Sonali Burte
Principal

Ref.....

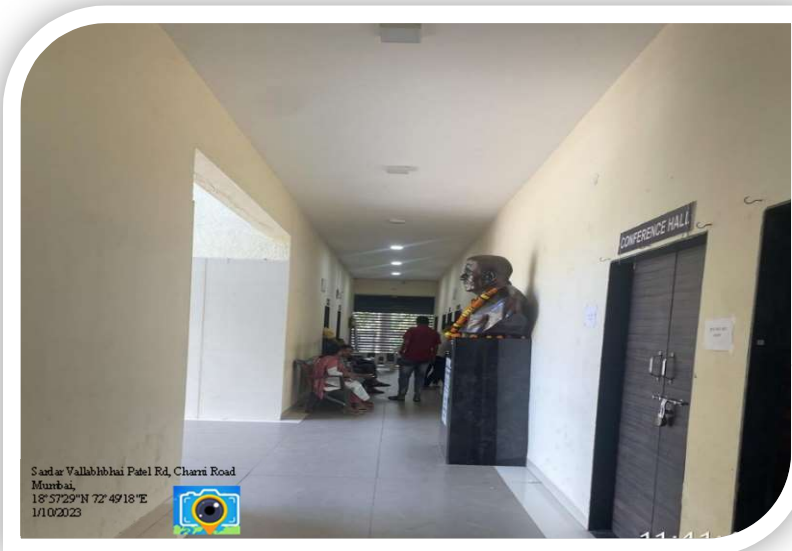
Date : / /20

7.3 FAULTY LIGHTS:

- Ballast of faulty light will draw power when the lights are ON even though it is not working.



Unnecessary lights in one single room



Faulty lights



Dr. Sonali Burte
Principal
Ashokdada Sable Law College
Mangaon-Raigad



Ashokdada Sable Law College

LL.B. 3 Year / LL.B. 5 Year / LL.M.

1st, Mangaon, Dist. Raigad. 402 104

ashokdadasablelawcollege@gmail.com

Adv. Vinod Ghayal
Chairman

Shri. Rajiv Sable
President

Shri. Krishna Gandhi
Secretary

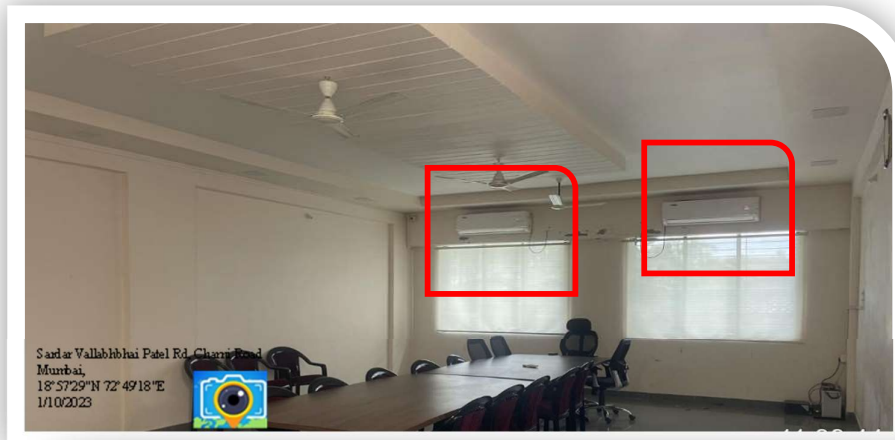
Dr. Sonali Burte
Principal

Ref.

Date : / /20

7.4 AIR CONDITIONERS:

- Brand & model consistent throughout the building which is best for maintenance.
- All most the unit is new.
- Officers leaving the door open when entering and exiting the room where the air conditioner is located.
- Air conditioning contributes to about 62% of the overall power consumption of the buildings.



Signature

Principal

New branded five-star Air Conditioner
Ashokdada Sable Law College
Mangaon-Raigad



Ashokdada Sable Law College

LL.B. 3 Year / LL.B. 5 Year / LL.M.

1st, Mangaon, Dist. Raigad. 402 104

ashokdadasablelawcollege@gmail.com

Adv. Vinod Ghayal
Chairman

Shri. Rajiv Sable
President

Shri. Krishna Gandhi
Secretary

Dr. Sonali Burte
Principal

Ref.....

Date : / /20

7.5 OFFICE EQUIPMENT:

- Most of the office equipment are usually left without turning them off after working hours and are using electricity as Vampire loads.
- - Electronics appliances (computer, printer, etc.) are still ON when connected to power point even though they are turned off.



Dr. Sonali Burte
Principal
Ashokdada Sable Law College
Mangaon-Raigad





Ashokdada Sable Law College

LL.B. 3 Year / LL.B. 5 Year / LL.M.

1st, Mangaon, Dist. Raigad. 402 104

ashokdadasablelawcollege@gmail.com

Adv. Vinod Ghayal
Chairman

Shri. Rajiv Sable
President

Shri. Krishna Gandhi
Secretary

Dr. Sonali Burte
Principal

Ref.....

Date : / /20

8.SUMMARY OF RECOMMENDATIONS

Below are some recommendations based on general observations carried out throughout the college building.

The recommendations are categorized with **A** being the most urgent where immediate actions are needed to be executed (first or second week of receiving this report). **B** can be 1 to 2 months after receiving this report, while **C** will depend on the availability of funds.

Recommendations		
Category A	Category B	Category C
Apply energy conservation measures. Isolate or unplug vampire loads from power when not in use (i.e. re-chargeable equipment, computer and any other electronic devices with standby modes).	Establish Energy Efficiency and Conservation steering committee to take lead with EE&C initiatives and management within the college buildings.	Where applicable, replace all Double Frame light fittings (double tube) with single frame (single tube) throughout the building. Also remove unnecessary lights or reduce the number of lights per location.
Remove faulty light holders and bulbs or remove live wire from socket inside the light holder.	Renovate or improve the lighting control, i.e. add more switches to existing rooms/spaces where only one switch controls more than 10 lights, especially the lights in the conference/meeting room.	Replace all lights with energy efficient light bulbs, i.e. LED bulbs and tube.
Remove any faulty appliances located in the building.	Use fans in places where possible (especially in unsealed room, indoor corridor, conference room, etc)	The conservation and efficiency mechanisms are tools for reducing the energy consumption.



Dr. Sonali Burte
Principal

Ashokdada Sable Law College
Mangaon-Raigad





Ashokdada Sable Law College

LL.B. 3 Year / LL.B. 5 Year / LL.M.

1st, Mangaon, Dist. Raigad. 402 104

ashokdadasablelawcollege@gmail.com

Adv. Vinod Ghayal
Chairman

Shri. Rajiv Sable
President

Shri. Krishna Gandhi
Secretary

Dr. Sonali Burte
Principal

Ref.....

Date : / /20

<p>so late or unplug faulty air conditioners if found within the building (working but no cold air coming out) and, OR service the air conditioner units quarterly.</p>	<p>Remove air conditioner if the room is very poorly sealed (i.e. if the room has no seals on the door and frequently open at times).</p>	<p>Replace old existing outdoor air conditioner units with efficient ones (if funding is available).</p>
---	---	--



Dr. Sonali Burte
Principal
Ashokdada Sable Law College
Mangaon-Raigad





Ashokdada Sable Law College

LL.B. 3 Year / LL.B. 5 Year / LL.M.

1st, Mangaon, Dist. Raigad. 402 104

ashokdadasablelawcollege@gmail.com

Adv. Vinod Ghayal
Chairman

Shri. Rajiv Sable
President

Shri. Krishna Gandhi
Secretary

Dr. Sonali Burte
Principal

Ref.....

Date : / /20

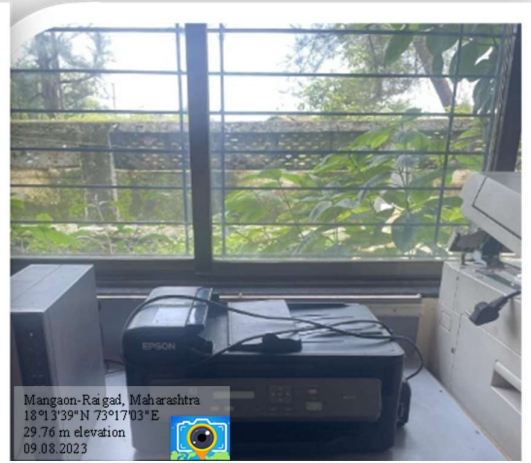
9. ENERGY SAVING ACTION PLAN BY COLLEGE:

9.1.1 REDUCING VAMPIRE LOADS:

- Turned OFF lights when not in used.
- Reduced the number of lights per switch, to better manage lighting.
- Reduced the number of lights per room.

9.1.2 LIGHTING:

- Disconnected the live wire connected to the faulty light bulb (s) to avoid leakage of energy.



Disconnected the live wire



Sonali Burte

Principal

Ashokdada Sable Law College
Mangaon-Raigad



भारत सरकार
Government of India
सूक्ष्म, लघु एवं मध्यम उद्यम मंत्रालय
Ministry of Micro, Small and Medium Enterprises

UDYAM-MH-19-0065047



Ashokdada Sable Law College

LL.B. 3 Year / LL.B. 5 Year / LL.M.

1st, Mangaon, Dist. Raigad. 402 104

ashokdadasablelawcollege@gmail.com

Adv. Vinod Ghayal
Chairman

Shri. Rajiv Sable
President

Shri. Krishna Gandhi
Secretary

Dr. Sonali Burte
Principal

Ref.....

Date : / /20

9.1.3 SOURCE OF NATURAL LIGHT:

College building architecture plan made in such way that the more day light (natural light) simply comes in corridor and class rooms.

Natural light is one of the key ways of saving energy. Daylighting minimizes the amount of artificial light and reduces electricity and HVAC (heating, ventilation, and air conditioning) costs. Electrical lighting produces a lot of heat, whereas natural lighting generates hardly any heat if it is properly controlled. Making use of natural light can save up to 75 percent of the energy used for lighting buildings and reduce cooling costs

A. Source of natural light



Source of natural light

Signature

Principal

Ashokdada Sable Law College
Mangaon-Raigad





Ashokdada Sable Law College

LL.B. 3 Year / LL.B. 5 Year / LL.M.

1st, Mangaon, Dist. Raigad. 402 104

ashokdadasablelawcollege@gmail.com

Adv. Vinod Ghayal
Chairman

Shri. Rajiv Sable
President

Shri. Krishna Gandhi
Secretary

Dr. Sonali Burte
Principal

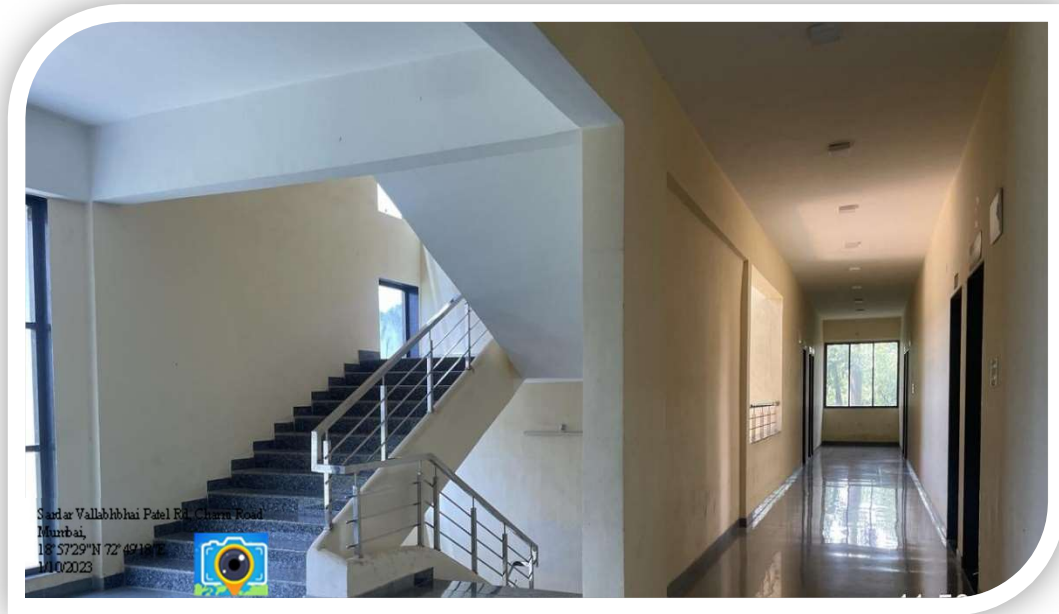
Ref.....

Date : / /20

9.1.4 VENTILATION:

The old building of college has been designed to minimize the environmental impact. the large size window and big corridors give fresh air and cross ventilation.

Since natural ventilation mainly affects air conditioning energy consumption in terms of energy saving, the design building reduces cooling energy consumption by 8.54 kWh/m² and heating energy consumption by 0.1 kWh/m² compared to the baseline building.



Sardar Vallabhbhai Patel Rd, Chhatra Road, Mumbai, 18° 57'29" N 72° 49'18" E, 11/11/2023

Big and spacious corridor's



Sonali Burte
Principal
Ashokdada Sable Law College
Mangaon-Raigad



Ashokdada Sable Law College

LL.B. 3 Year / LL.B. 5 Year / LL.M.

1st, Mangaon, Dist. Raigad. 402 104

ashokdadasablelawcollege@gmail.com

Adv. Vinod Ghayal
Chairman

Shri. Rajiv Sable
President

Shri. Krishna Gandhi
Secretary

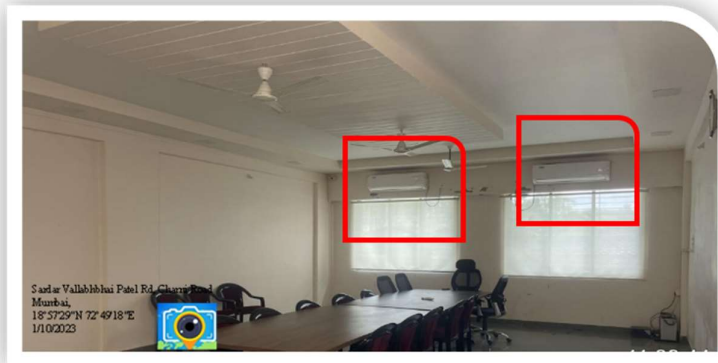
Dr. Sonali Burte
Principal

Ref.....

Date : / /20

9.1.5 AIR CONDITIONERS:

- Using same brand throughout (cheap for maintenance cost)
- The air conditioners serviced quarterly.
- Using sealed glass windows and sealed glass doors.
- Always door closed when entering/exiting an air-conditioned room (putting a notice on the front and back of the door as a reminder).
- Keeping and maintaining the temperature at **23 °C** during summer and occasionally used in winter.
- Switch OFF when not in used.
- Using electric fan whenever possible.
- Using outside breeze, when possible, should the air conditioner be turned off completely to minimize the cost of electricity.
- Installation of correct sizing of air conditioner in the rooms.
- All installed air conditioners servicing twice or three times a year.



SB
Principal
Ashokdada Sable Law College
Mangaon-Raigad





Ashokdada Sable Law College

LL.B. 3 Year / LL.B. 5 Year / LL.M.

1st, Mangaon, Dist. Raigad. 402 104

ashokdadasablelawcollege@gmail.com

Adv. Vinod Ghayal
Chairman

Shri. Rajiv Sable
President

Shri. Krishna Gandhi
Secretary

Dr. Sonali Burte
Principal

Ref.....

Date : / /20

9.1.6 POWER BACKUP (Inverter):

An inverter is a device that helps in converting the direct current electricity into alternate current electricity. Inverters are mainly used as a source of power to run devices when there are power cuts.

Microtek UPS and Inverters provide an intensive power backup to all your appliances, along with this they have many advanced features.

Two inverters with three batteries'



Inverter



SMB

Principal

Ashokdada Sable Law College
Mangaon-Raigad



Ashokdada Sable Law College

LL.B. 3 Year / LL.B. 5 Year / LL.M.

1st, Mangaon, Dist. Raigad. 402 104

ashokdadasablelawcollege@gmail.com

Adv. Vinod Ghayal
Chairman

Shri. Rajiv Sable
President

Shri. Krishna Gandhi
Secretary

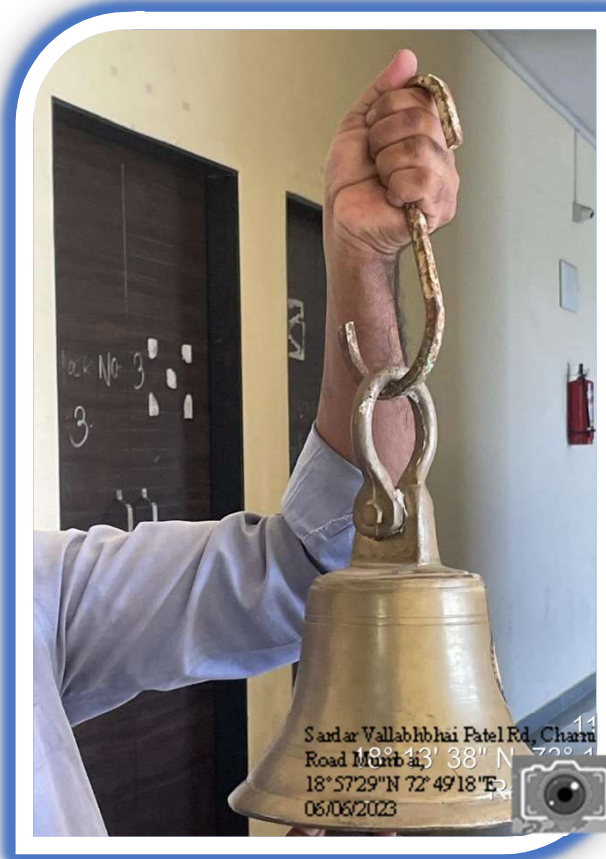
Dr. Sonali Burte
Principal

Ref.....

Date : / /20

9.1.7 Bell:

College has manual bell. Bells offer several advantages, including loud and clear sound, reliability, and adjustability, reduce electricity bill. However, electric bell has some disadvantages, including the need for a power supply, the risk of shock, cost, and maintenance requirements.



(Signature)

Principal
Ashokdada Sable Law College
Mangaon-Raigad



Ashokdada Sable Law College

LL.B. 3 Year / LL.B. 5 Year / LL.M.

1st, Mangaon, Dist. Raigad. 402 104

ashokdadasablelawcollege@gmail.com

Adv. Vinod Ghayal
Chairman

Shri. Rajiv Sable
President

Shri. Krishna Gandhi
Secretary

Dr. Sonali Burte
Principal

Ref.....

Date : / /20

9.1.8 OFFICE EQUIPMENT:

(Computers, printers and network accessories)

- All office equipment such as printers, computers i.e. PC, monitor, etc. turned off on the power point.
- Avoiding putting equipment on 'STANDBY MODE'



SBM

Principal

Ashokdada Sable Law College
Mangaon-Raigad





17 July 2019

Ashokdada Sable Law College

LL.B. 3 Year / LL.B. 5 Year / LL.M.

1st, Mangaon, Dist. Raigad. 402 104

ashokdadasablelawcollege@gmail.com

Adv. Vinod Ghayal
Chairman

Shri. Rajiv Sable
President

Shri. Krishna Gandhi
Secretary

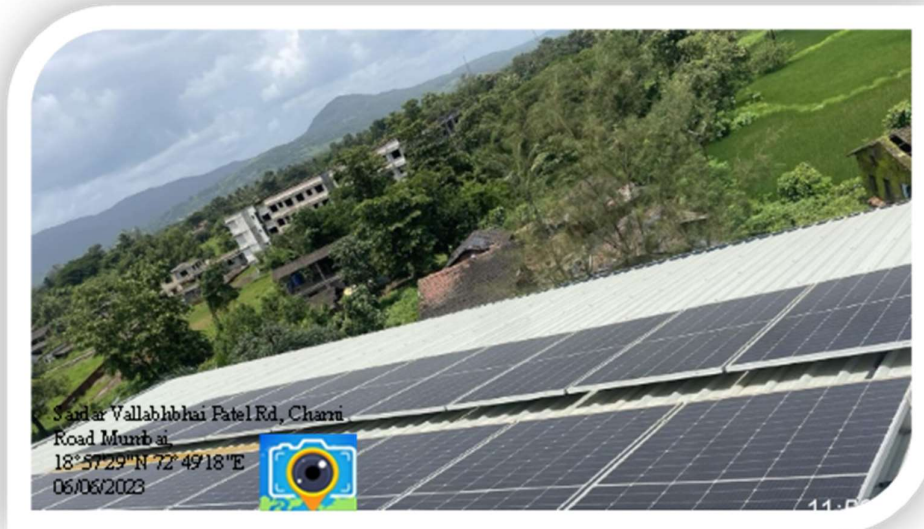
Dr. Sonali Burte
Principal

Ref.....

Date : / /20

9.1.9 SOLAR LIGHTS:

- Solar lights are a clean and green energy source that do not produce any harmful emissions or pollutants. This makes them an environmentally friendly option that can help reduce carbon emissions and improve air quality.
- College Utilizing solar LED lighting systems for a street, parking and pathways. This will reduce cost and the impact on the environment.
- Details of solar light:
- A solar panel is built in to quickly absorb sunlight for charging, and the battery is a large capacity of 1800mAh. Place the solar light in direct sunlight to fully charge the batteries. Charging 6-8 hours can be 8-12 hours of lighting, fully sufficient for daily use.



Solar Pannel



SMB
Principal
Ashokdada Sable Law College
Mangaon-Raigad



भारत सरकार
Government of India
सूक्ष्म, लघु एवं मध्यम उद्यम मंत्रालय
Ministry of Micro, Small and Medium Enterprises

UDYAM-MH-19-0065047



17 July 2019

Ashokdada Sable Law College

LL.B. 3 Year / LL.B. 5 Year / LL.M.

1st, Mangaon, Dist. Raigad. 402 104

ashokdadasablelawcollege@gmail.com

Adv. Vinod Ghayal
Chairman

Shri. Rajiv Sable
President

Shri. Krishna Gandhi
Secretary

Dr. Sonali Burte
Principal

Ref.....

Date : / /20

9.1.10 WATER CONSERVATION:

- Conserving water saves energy. Energy is needed to filter, heat and pump water to your home, so reducing your water use also reduces your carbon footprint. College requires huge amounts of water to maintain clean campus, student washroom, on-campus dining, facilities, and more.

Source of water:

- **Municipal:** Mangaon Municipal Corporation supplies water to the college on free of cost. The same water store in overhead tanks, college use efficient pump for lifting water to overhead tanks.
- **Drinking water:** The college has RO plant on each floor.



Dr. Sonali Burte

Principal

Ashokdada Sable Law College
Mangaon-Raigad



Ashokdada Sable Law College

LL.B. 3 Year / LL.B. 5 Year / LL.M.

1st, Mangaon, Dist. Raigad. 402 104

ashokdadasablelawcollege@gmail.com

Adv. Vinod Ghayal
Chairman

Shri. Rajiv Sable
President

Shri. Krishna Gandhi
Secretary

Dr. Sonali Burte
Principal

Ref.....

Date : / /20

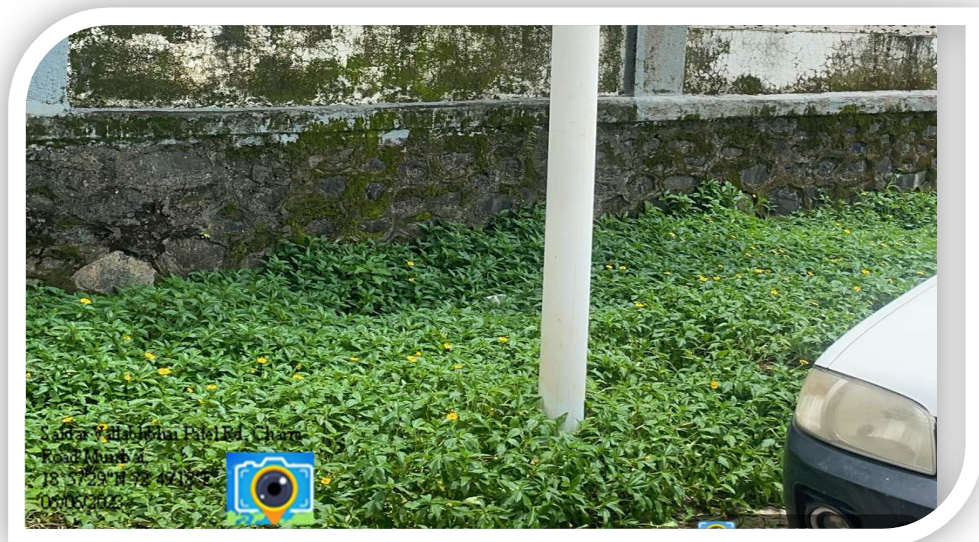
9.1.11 Tube well:

The oldest and most common kind of well is a water well, to access groundwater in underground aquifers. The well water is drawn up by a pump, or using containers, such as buckets or large water bags that are raised mechanically or by hand

- College has a big well with good source of water. The well water is pumped into storage tanks located at different places in the campus.
- There are few numbers of overhead storage tanks. The water is distributed through well laid pipe network.
-

Advantages of tube well

- Makes groundwater available when the water table is fairly close to the surface.
- Able to irrigate a large area.
- More reliable than surface water during periods of drought.
- Suitable for small holdings.



GP

Principal

Ashokdada Sable Law College
Mangaon-Raigad



Ashokdada Sable Law College

LL.B. 3 Year / LL.B. 5 Year / LL.M.

1st, Mangaon, Dist. Raigad. 402 104

ashokdadasablelawcollege@gmail.com

Adv. Vinod Ghayal
Chairman

Shri. Rajiv Sable
President

Shri. Krishna Gandhi
Secretary

Dr. Sonali Burte
Principal

Ref.....

Date : / /20

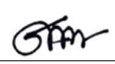
10. HISTORICAL DATA ANALYSIS

A. Energy Balance

Table shows the electricity consumption of college building for 1-year period. Raw data was not provided accordingly, hence an average estimated power consumption was calculated

Table Electricity bill (March 2023 – April 2024)

Month	Power Consumption(kWh)/Month	Total Electricity Cost (Rs)
May	369	4971
June	556	7275
July	1123	17855
August	661	8500
September	537	6904
October	633	7894
November	790	10231
December	667	8900
Jan	709	8700
Feb	1700	12409
March	480	7400
April	130	2700
Total		103739


 Principal
 Ashokdada Sable Law College
 Mangaon-Raigad

From Table 2, the average cost of the monthly consumption is calculated to be: **8644 Rs**

Thus, the cost of the yearly consumption is **103739 Rs**





Ashokdada Sable Law College

LL.B. 3 Year / LL.B. 5 Year / LL.M.

1st, Mangaon, Dist. Raigad. 402 104

ashokdadasablelawcollege@gmail.com

Adv. Vinod Ghayal
Chairman

Shri. Rajiv Sable
President

Shri. Krishna Gandhi
Secretary

Dr. Sonali Burte
Principal

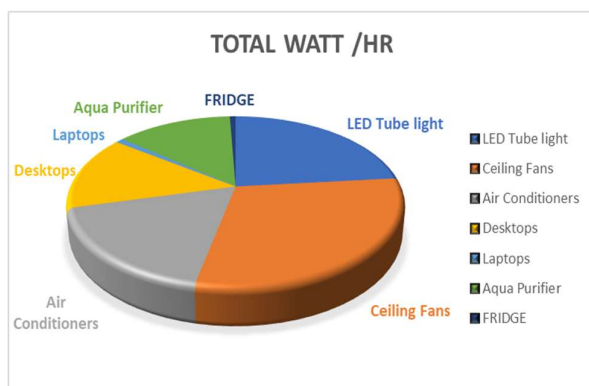
Ref.....

Date : / /20

11. INVENTORY DETAILS OF LIGHT UNITS

Sr. No	Gadgets	Total No	Watt/hour
1	LED Tube light	264	20
2	Ceiling Fans	90	75
3	Air Conditioners/Split Ac	4	1000
4	Desktops	16	200
5	Laptops	01	200
6	Printers	06	NA
7	CCTV Cameras	29	NA
8	Aqua Purifier	04	750
9	Xerox Machine	01	NA
10	FRIDGE	01	150
	INVERTER	03	NA

POWER CONSUMPTION DETAILS BREAKDOWN



Analysis of the chart

Air conditioning and Ceiling Fans is responsible for high significant proportion of the total energy consumption followed by LED tube lights.

- There is variation among the appliance due to their arrangement within the building, the hours in which they operate and the rate at which they consume electricity.



GFm
Principal

Ashokdada Sable Law College
Mangaon-Raigad





Ashokdada Sable Law College

LL.B. 3 Year / LL.B. 5 Year / LL.M.

1st, Mangaon, Dist. Raigad. 402 104

ashokdadasablelawcollege@gmail.com

Adv. Vinod Ghayal
Chairman

Shri. Rajiv Sable
President

Shri. Krishna Gandhi
Secretary

Dr. Sonali Burte
Principal

Ref.....

Date : / /20

12.POWER CONSUMPTION DATA

Power consumption data for the campus building (2022/2023)

Maharashtra State Electricity Distribution Co. Ltd.

MAHAVITARAN
CIN : U40109MH2008BGC153845

BILL OF SUPPLY FOR THE MONTH OF Apr-2024
GSTIN : 27AAEDM3291K1Z1 Website: www.mahadiscom.in HSN CODE: 27160000

PEN CIRCLE - 525 ROHA DIVISION - 547 MANGAON S/DN - 806 BU 4005 Bill No: 00000230723059

Consumer No. : 038041012100 SOLAR NET METER (10.00 KW)
Consumer Name : Principal Ashokdada Sable Law College
Address : 250 near district court MANGAON RAIGAD Mangaon

Village : Pln Code : 402104

E-mail: hapixxxxxx@gmail.com Activity : OTHER EQUIPMENT IN

Mobile No. : 980000027 Meter No.: 076-53585856 Seasonal : N /

Sanctioned Load (KW): 0.00 KW Connected Load (KW): 10.00 KW Urban/Rural Flag : U Express Feeder Flag : N

Contract Demand (KVA): 13.00 50% of Con. Demand (KVA): 6.50 Feeder Voltage (KV): 11

Tariff: 52 LT-II A DTC : 4805438 GIS Dis/Pole PC-MR-ROUTE-SEQ 00-03-5555-0281

Date of Connection: 12/10/2021 Category: Commercial GSTIN:

Apply at: LT Elec. Duty: DE PART B PAN:

Prev. Highest (Mth): Prev. Highest Bill Demand (KVA): Reader: M30_EXCEPTIONAL

Security Deposit Held Rs.: 11240.00 Addl. S.D. Demanded Rs.: 1650.00

Bank Guarantee Rs.: S D Arrears Rs.: 0.00

BILLING HISTORY			
Bill Month	Units	Bill Demand(KVA)	Bill Amount
Mar-2024	0	0	470.00
Feb-2024	0	0	470.00
Jan-2024	536	0	7085.01
Dec-2023	603	0	7899.55
Nov-2023	727	0	9231.12
Oct-2023	401	0	5346.73
Sep-2023	537	0	6804.77
Aug-2023	661	0	8244.76
Jul-2023	1517	0	11728.61
Jun-2023	556	0	7098.48
May-	639	0	7988.28
Apr-2023	482	0	6335.66

CUSTOMER CARE Toll Free No.
1912, 1800-233-3435,
1800 102-3438

Rule & Procedure for Consumer Grievances Redressal is available at www.mahadiscom.in/consumer-portal>CGIR

Scan this QR Code with BHIM App for UPI

If paid by QR Code then Prompt Pay Discount/Delay Payment Charges will be adjusted in subsequent bill.

Maintain Harmonic distortion within limit as prescribed by IEEE STANDARD 519-1992 to avoid penalty

Avail Power factor incentive up to 3.5% maintaining power factor above 95% to 100%

Avail load factor incentive up to 15% by maintaining constant load profile.

Avail 1% prompt payment discount by paying bills within prompt payment date.



(Signature)

Principal
Ashokdada Sable Law College
Mangaon-Raigad



Ashokdada Sable Law College

LL.B. 3 Year / LL.B. 5 Year / LL.M.

1st, Mangaon, Dist. Raigad. 402 104
ashokdadasablelawcollege@gmail.com

Adv. Vinod Ghayal
Chairman

Shri. Rajiv Sable
President

Shri. Krishna Gandhi
Secretary

Dr. Sonali Burte
Principal

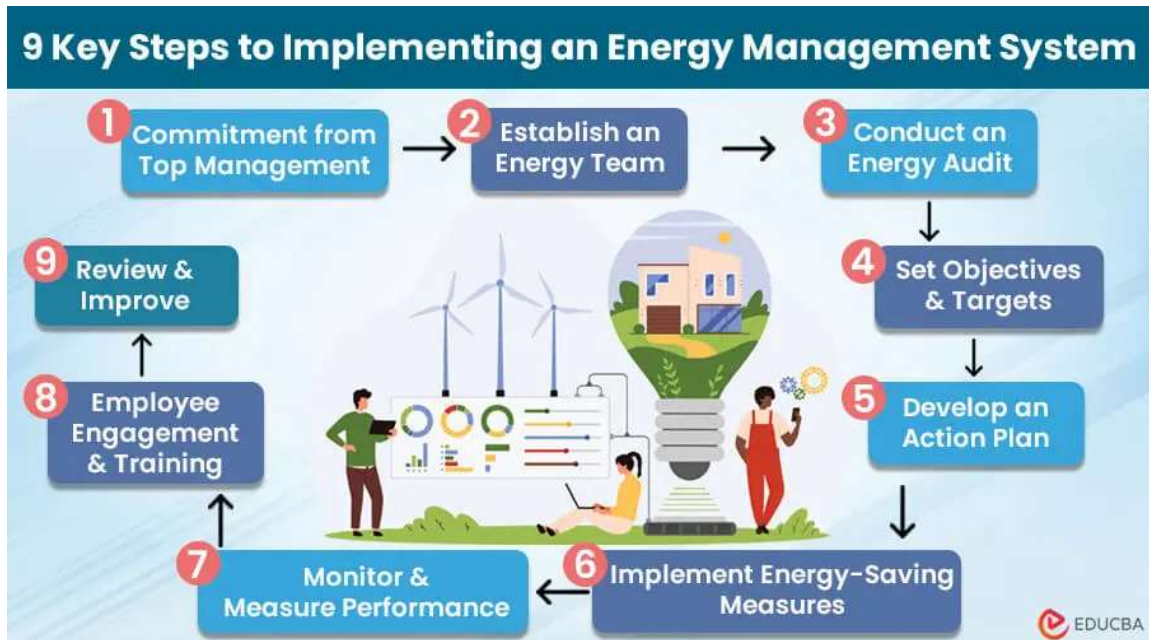
Ref.....

Date : / /20

13. Energy Management Workshop and Training:

- Develop energy management policies for college. Establish a procurement policy that is energy saving and eco-friendly.
- Conduct awareness and training programs for faculty, student and non-teaching staffs. Conduct seminars, workshops and exhibitions on energy management education.

Underground water Tanks



SAB
Principal
Ashokdada Sable Law College
Mangaon-Raigad





Ashokdada Sable Law College

LL.B. 3 Year / LL.B. 5 Year / LL.M.

1st, Mangaon, Dist. Raigad. 402 104

ashokdadasablelawcollege@gmail.com

Adv. Vinod Ghayal
Chairman

Shri. Rajiv Sable
President

Shri. Krishna Gandhi
Secretary

Dr. Sonali
Princip

Ref.....

Date : / /

14.Environmental Health and Safety

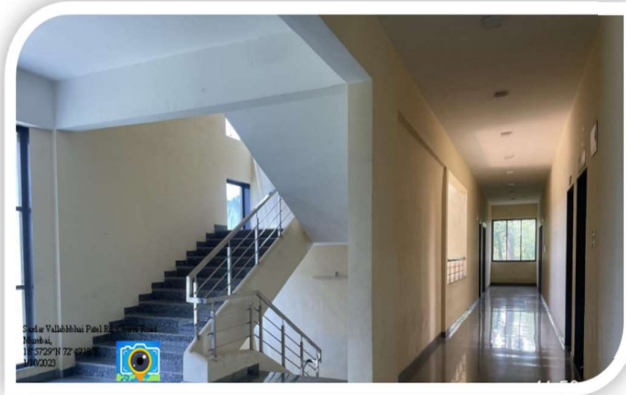
An (EHS) policy is an important part of any organization’s overall health and safety program. ADS law college focuses on the prevention of injury or illness caused by hazardous materials, processes or activities within the workplace.

Introduction to Environmental Health and Safety

EHS teams play a key role in creating and enforcing safety standards and protocols that meet local and national regulations. Through consistent monitoring, they also ensure that safety best practices are followed in the college campus.

Importance Environmental Health and Safety:

- Emergency response plans – For instance, for gas leaks, floods, fire and bomb threats
- Identifying and addressing hazards before they develop into bigger issues
- Reduced environmental impact
- Efficient natural resources
- Reduced their waste output
- Cost savings in the long term



Stair case



Fire Extinguisher



Signature
Principal
Ashokdada Sable Law College
Mangaon-Raigad



Ashokdada Sable Law College

LL.B. 3 Year / LL.B. 5 Year / LL.M.

1st, Mangaon, Dist. Raigad. 402 104

ashokdadasablelawcollege@gmail.com

Adv. Vinod Ghayal
Chairman

Shri. Rajiv Sable
President

Shri. Krishna Gandhi
Secretary

Dr. Sonali
Princip

Ref.....

Date : / /

15.PHOTO PLATES:



Energy Management System



Shri. Rajiv Sable
Principal
Ashokdada Sable Law College
Mangaon-Raigad



Ashokdada Sable Law College

LL.B. 3 Year / LL.B. 5 Year / LL.M.

1st, Mangaon, Dist. Raigad. 402 104

ashokdadasablelawcollege@gmail.com

Adv. Vinod Ghayal
Chairman

Shri. Rajiv Sable
President

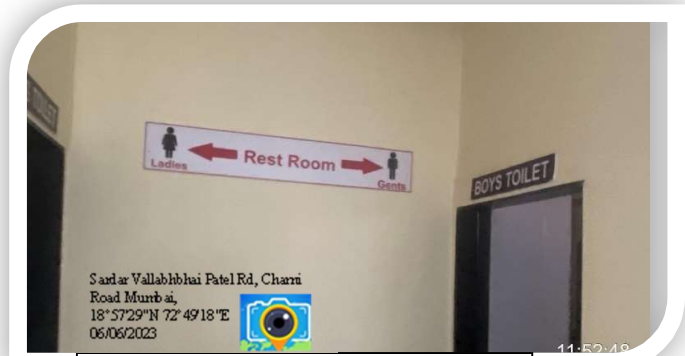
Shri. Krishna Gandhi
Secretary

Dr. Sonali
Princip

Ref.....

Date : / /

Library



Washrooms

Natural source of light and proper ventilation



GFm
Principal
Ashokdada Sable Law College
Mangaon-Raigad



17 July 2019

Ashokdada Sable Law College

LL.B. 3 Year / LL.B. 5 Year / LL.M.

1st, Mangaon, Dist. Raigad. 402 104

ashokdadasablelawcollege@gmail.com

Adv. Vinod Ghayal
Chairman

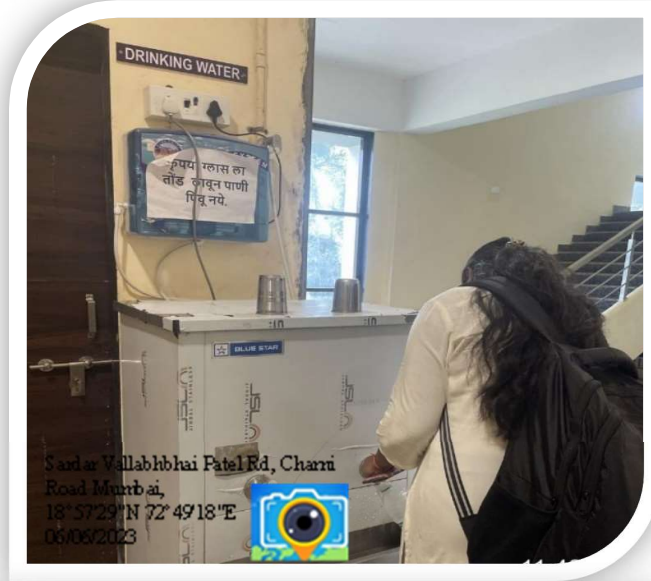
Shri. Rajiv Sable
President

Shri. Krishna Gandhi
Secretary

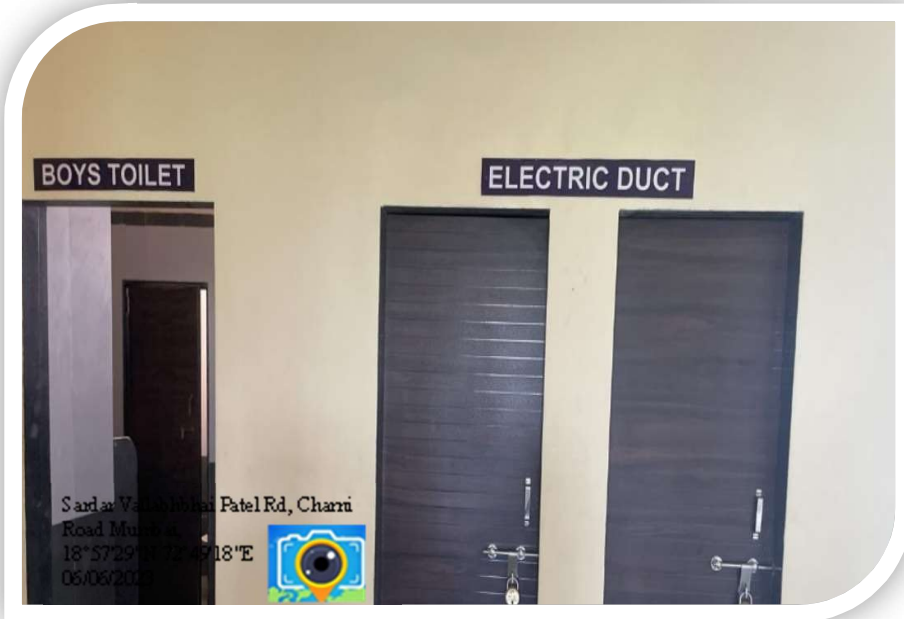
Dr. Sonali
Principal

Ref.....

Date : / /



Sardar Vallabhkhai Patel Rd, Charni
Road Mumbai,
18°57'29"N 72°49'18"E
06/06/2023



Sardar Vallabhkhai Patel Rd, Charni
Road Mumbai,
18°57'29"N 72°49'18"E
06/06/2023



Principal
Ashokdada Sable Law College
Mangaon-Raigad



Ashokdada Sable Law College

LL.B. 3 Year / LL.B. 5 Year / LL.M.

1st. Mangaon, Dist. Raigad. 402 104

ashokdadasablelawcollege@gmail.com

Adv. Vinod Ghayal
Chairman

Shri. Rajiv Sable
President

Shri. Krishna Gandhi
Secretary

Dr. Sonali
Princip

Ref.....

Date : / /

(Subject Mangaon Jurisdiction) Off. ☎ : 02140 - 263431
Mob. : 92268 90527
94226 94733

27ABDPK7087M1Z2
SAI TRADERS
Near Vaibhav Hotel,
Mangaon - Raigad. 402 104
All Kinds of Water Pumps : Jet Pump,
Submersible Pump, Domestic, Monoblock,
Diesel Eng., H. D. P. Pipe and Other Acce.

No. : 4
To, *Duplicate Bill*
M/s. *अशोकदा साबळे लॉ. कॉलेज* Vill. *माणगाव*
Date : 31/7/2024

No.	DESCRIPTION	Quantity	Vat %	Rate	Amount
01)	<i>[Redacted] / KIRLOSKAR - Sub., Monoblock, Self P. Pump's 1ø, 3ø H. P. 2 Stage A24YWS000016</i>	1 nos.	18%	23000L	23000L
02)	Nylon Rope mm.p.p.	mtr.	12%		
03)	H. D. P. E. Pipe 1", 1½", 2½", 1¼", 2"	ft.	18%		
04)	Cleeps	nos.	18%		
05)	Baral Nipple 1", 1¼", 1½", 2", 2½"	nos.	18%		
06)	Bore Clamps Light / Heavy	nos.	18%		
07)	Bore Cap	nos.	18%		
08)	Panel Box with Starter 1ø, 3ø S.P.P. Pump Guard, V.mtr. A.mtr. Dryrun Systm		18%		
09)	Cable S.Q.mm. Core Flat / Round	mtr.	18%		
10)	Cover / Nut Bolt	nos.	18%		
11)	Bend With Cuplar	nos.	18%		
12)	Fitting Material Set	1 Set	18%	200L	200L
13)	Transportation Charges	On Site	18%		
14)	Dismantalling & Installastion	Job Work	18%	800L	800L
				Total Rs.	24000L
				SGST 6%	-
				CGST 6%	-
				SGST 9%	-
				CGST 9%	-
				G. Total Amount	24000L
				Adv. Amount	-
				Balance Amount	24000L

* I/We hereby certify that my / our registration certificate under the Maharashtra Value Added Tax Act, 2002 is in force on the date on which the sale of goods specified in this tax invoice is made by me / us and that the transaction of sale accounted for in the turnover of sales while filing of return and the due tax, if any payable on the sales has been paid or shall be paid.

(Rupees in words) *चौवीस हजार रुपये मात्र*

Note : 1) Interest at the rate of 2% per Month will be Charged if the payment is not Made in 10 days.
2) Goods once sold will be not taken back.

For SAI TRADERS



[Signature]
Principal
Ashokdada Sable Law College
Mangaon-Raigad

UDYAM-MH-19-0065047



Ashokdada Sable Law College

LL.B. 3 Year / LL.B. 5 Year / LL.M.

1st, Mangaon, Dist. Raigad. 402 104

ashokdadasablelawcollege@gmail.com

Adv. Vinod Ghayal
Chairman

Shri. Rajiv Sable
President

Shri. Krishna Gandhi
Secretary

Dr. Sonali
Princip

Ref.....

Date : / /



Signature
Principal
Ashokdada Sable Law College
Mangaon-Raigad

-----VRINDAVAN LANDSCAPE & ECOLOGICAL SOLUTIONS -----