



ACHIEVERS COLLEGE

OF COMMERCE & MANAGEMENT (NIGHT)

Affiliated to University of Mumbai

Managed by: Shree Dnyaraj Mauli Shikshan Seva Mandal

ISO 9001:2015 Certified

GREEN, WATER, ENERGY, WASTE AND ENVIRONMENTAL AUDIT WITH ISO CERTIFICATE

SR. No	PARTICULARS	PAGE No.
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SYSTEMS...

Certificate

This is to Certify that

ACHIEVERS COLLEGE OF COMMERCE AND MANAGEMENT

Near HDFC Bank, Santoshmata Mandir Road, Mhallar Nagar, Kalyan (W) – 421301.

**Has been independently assessed and is compliant with the
requirements of**

GREEN COMPLIANCE

For the standards of the institute for the following scope:

**GREEN & ENERGY AUDIT CERTIFICATION AS PER
ENVIRONMENTAL MANAGEMENT SYSTEM COMPLIANCE.**

Certificate No: - IN2037/GC/UAS

DATE OF CERTIFICATION: 10 / SEPTEMBER / 2020

1st SURVEILLANCE AUDIT DATE: 09 / SEPTEMBER / 2021

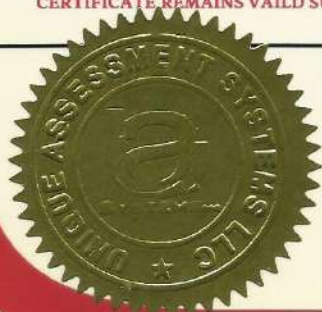
2nd SURVEILLANCE AUDIT DATE: 08 / SEPTEMBER / 2022

CERTIFICATE EXPIRY: 09 / SEPTEMBER / 2023

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Shree Dnyanraj Mauli Shikshan Seva Mandal's
**ACHIEVERS COLLEGE
OF COMMERCE AND MANAGEMENT (NIGHT)**
Kalyan (W).

Recognised under Section 2 f of the UGC Act, 1956
ISO 9001: 2015 Certificate Institution.

ACHIEVERS COLLEGE CAMPUS
Green Audit Report
2019-20



Achievers College Of Commerce and Management
Near HDFC Bank, Santoshi Mata Road, Mhalar Nagar, Kalyan (W) - 421301.
Website : achieversorbit.org email : achieversiqac@gmail.com
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INTRODUCTION

1. Trust Profile

Shree Dnyanraj Mauli Shikshan Seva Mandal, is registered in the year 2008 under The Societies Registration Act, 1860 as well as under The Public Charitable Trust Act, 1950. Achievers College of Commerce and Management (Night College) managed by 'Shree Dnyanraj Mauli Shikshan Seva Mandal, Kalyan' was established in August, 2013 by a visionary personality in an education filed Dr(CA) Mahesh Bhiwandikar who has rich experience of 25 years working in the well known College located in the vicinity. He has ventured this educational institution with a vision to generate the successful Achievers Institute, to enrich and sharpen the enthusiastic young generation with high values and make them perform outstandingly well in society. The College Development Committee consisting of eminent personalities in the field of Educational, Research, entrepreneurship and Social fields, along with the representatives of Teaching, support staff and students have been actively contributing in the overall development of the College. The Institution was formed with the mission to create an educational path for the determined youth to set target in their lives and inculcate ethics, ethos, corporate acceptable values and enable them to achieve success.

The College is affiliated to University of Mumbai as a Self Financing Institution. It is recognized under section 2(f) of UGC Act, 1956.

The College has young and enthusiastic team of Teaching and Support staff headed by the dynamic Principal. It has also received ISO certification (9001:2015).

Location of the College

Achievers College is located 19:05N latitude and 74:44E longitude at Near HDFC Bank, Santoshi Mata Road, Mhalar Nagar, Kalyan. The College location is situated at just 5 minutes walking distance from the Kalyan Railway Station at West side. The college has a strategic



location in heart of the city having three side approach road coming from Railway station, Shivaji Chowk and Santoshimata Mandir Road, and is easily accessible from all parts through public transport system.

Achievers College is a vision conceptualized by its founder Dr. Mahesh Bhiwandikar having KG to PG learning for the economically deprived, socially downtrodden and educationally disadvantaged section of the society. The establishment of the college was the realization of a long and elusive dream of the Bhiwandikar Family.

Achievers College had its humble beginnings as a Commerce and Management College, with 23 students on 21st August, 2013. Today the College caters to the educational needs of students of Kalyan City and surrounding 27 villages and endeavors to sustain quality enhancement in all its curricular and co-curricular aspects as well as its student's progression, governance and leadership. The College has five UG Programs like B.Com, BMS, BAF, BAMMC, B.Sc (IT) and one PG program of M.Com (Advance Accountancy).

Initially College was housed in a Small building having only 7 Class Rooms, One Computer Laboratory and an Office, but later in the year 2018 it is shifted to its own ground plus four storey building with great infrastructure, huge & spacious classrooms, Computer laboratory, Incubation Centre, Cultural Activity Hall, Library with good reading space and a Seminar Hall with 125 seating capacity. It is constructed on a Plot reserved for Educational purpose located in the heart of the city which is just 5 minutes away from Kalyan Railway Station.

Being a night college it caters to the needs of working class of the students and also offers internship and job placements to needy students. The greed to learn and gain work experience are aligned by the College Mantra "*Earn While You Learn*".

College is both Staff and Student friendly. The infrastructure thus is designed in the interest of both the staff and students. Spacious classrooms, good ventilation, white boards, blackboards, over head projectors and comfortable seating system with Stair case on both the sides of the floor makes it convenient for everybody. Each floor is situated with staff rooms, washrooms, notice boards in such a way so as to make both the students and the staff comfortable.



College offers various UG, PG, Vocational and Add-on Certificate courses. College also has NSS Unit, Career Counselling Cell, Entrepreneur Incubation Centre, Campus to Corporate Placement Cell, Women Development Cell and Government approved computer courses and Help Desk to counsel, groom and motivate students.

1.1 College Vision.

To generate the successful Achievers Institute, to enrich and sharpen the enthusiastic young generation with high values and make them perform outstandingly well in society.

1.2 College Mission

To create an educational path for the determined youth to set target in their lives and inculcate ethics, ethos, corporate acceptable values and enable them to achieve success.

1.3 Core Values

- 1) Accountability and Responsibility
- 2) Honesty and Integrity
- 3) Encouragement
- 4) Leadership and Humanitarian Approach
- 5) Continuous Improvement for Better Change
- 6) Students Learning and Development

1.4 College Objectives

- To empower students with good knowledge, skills and guidance that they need
- To transform youth into global personalities, well equipped to deal with modern world and its challenges
- To Introduce students to vocational courses and tailor make them for corporate world
- To encourage and facilitate women empowerment
- To impart entrepreneur skills to transform youth from job seeker to job giver



- To work as a finishing school for youth enablement
- To develop innovative and creative thinking among students through various training sessions.
- To transform student's, impart soft skills, computing skills, certificate courses and internships,

1.4 Total Campus Area and College Building Spread Area

Campus Area	20,734 sq ft
Built up Area	24,730 sq ft

ACKNOWLEDGEMENT

The green audit conducted by the ACHIEVERS COLLEGE OF COMMERCE AND MANAGEMENT (NIGHT), KALYAN is an internal audit which aims towards looking after a healthy environment. The initiative is taken up to complete the concept of environmental sustainability.

The Audit Team is indeed thankful to the College Management, Principal, Teaching, Non Teaching Staff and the Students Council of the College for providing us necessary amenities and co-operation during the audit that helped in making the audit process, a grand success.



CAMPUS INFRASTRUCTURE

List of infrastructure	Nos.
Class Rooms	28
Science laboratory	01
Computer lab	01
Library and Reading Room.	01
Gymkhana	01
Girls common room	02
Girls wash room	05
Boys Common room	02
Boys Wash Rooms	09
Seminar Hall	01
General office	01
Principal's Chamber	01
Vice Principals Chamber	01
Chairman's Office	01
Management office	01
Incubation center	01
NSS Office.	01
Activity Room	01
Staff Rooms	03
Media Lab	01
Security Cabin	01



Store Rooms	03
Examination Room	01
Canteen	01
Gandhian Study Center	01

AUDIT KEY STEPS

Discussion completed	15 th February, 2020
Field work completed	5 th March, 2020
Management response received	10 th March, 2020
Final report completed	15 th March, 2020
Report presented to the Management	14 th September, 2020

MANAGEMENT'S COMMITMENT

The Management of the campus has shown the commitment towards the green initiatives during the pre audit meeting. All the stake holders were ready to encourage all green activities that are environment friendly such as awareness programs on the campus etc. after the green audit. The management of the campus was willing to formulate policies based on green auditing report.

EXECUTIVE SUMMERY

In accordance with the Green Campus Evaluation Plan, ACHIEVERS COLLEGE OF COMMERCE AND MANAGEMENT planned for conducting a green audit of the



College in January 2020. The purpose of the audit was to make sure that the practices followed in the campus are healthy and environment friendly. With this in mind, the specific objective of the audit were to evaluate the degree to which the Departments are in compliance with the applicable regulations, policies and standards and to ensure that the development of the College aims at sustainable development and green campus.

STATEMENT OF ASSURANCE

This audit is been conducted for the first time in the College. The audit procedure tried to meet the terms of International Standards of Internal Auditing. In our opinion, sufficient and appropriate audit procedures were completed and evidence gathered to support the precision of the conclusions reached and are contained in this report .The conclusions are based on a comparison of the situation's as they existed at the time of the audit.

SUMMARY OF FINDINGS

The main findings of the audit show that, in general, all the departments and students are aware about the need for environmental protection at a general level. It was also observed that a number of best practices such as maintaining plants, planting trees in and around the campus, to waste management technique, etc. are followed in the campus. However, on detailed review, it was observed that, as the College is implementing Green Campus Policy for the first time, many of the practices followed in the institution are still in early stage and needs further nurturing.

PARTICULARS	ATTRIBUTES	VARIABLES
COLLEGE	CAMPUS AREA	20,734 Sq. Ft.
	BUILTUP AREA	24,730 Sq. Ft.
POPULATION	STUDENTS	823
	TEACHERS	14
	NON TEACHING STAFFS	09



SCOPE AND GOALS OF GREEN AUDITING

Earth is the only planet in the universe to sustain life because of its environment. No life can exist without suitable environment and so no human being. A clean and healthy environment aids effective learning and providing a conducive learning environment. There are various efforts around the world to address environmental education issues. Green audit is the most efficient and ecological way to manage environmental problems. It is a kind of professional care which is the responsibility of each individual who are the part of economical, financial, social and environmental factor. It is necessary to conduct green audit in College campus because by this students become aware of the green audit, its advantages to save the planet and they became good and caring citizen of our country. Thus green audit is necessary factor for each and every academic institute.

A simple system has been devised to monitor the environmental performance of Achievers College. It comes with a series of questions to be answered on a regular basis. This innovative scheme is user friendly and voluntary. The aim of this is to help the College to set environmental examples for the community and to educate the young generation.

BENEFITS OF GREEN AUDITING

- To ensure efficient resource management.
- To provide basis for improved sustainability.
- To create a green campus.
- To enable waste management through reduction of waste generation, solid- waste and water recycling
- To create plastic free campus and evolve health consciousness among the stakeholders



- Recognize the cost saving methods through waste minimizing and managing Point out the prevailing and forthcoming complications'
- To authenticate conformity with the implemented laws
- To Empower the organizations to frame a better environmental performance
- To Enhance the alertness for environmental guidelines and duties
- To impart environmental education through systematic environmental management approach and improving environmental standards.
- Benchmarking for environmental protection initiatives.
- Financial savings through a reduction in resource use.
- Development of ownership, personal and social responsibility for the College and its environment Enhancement of college profile
- Developing an environmental ethic and value systems in youngsters.
- Green auditing should become a valuable tool in the management and monitoring of environmental and sustainable development programs of the College.

TARGET AREAS OF GREEN AUDITING

Green audit forms a part of resource management process. Although they are individual events, the real value of green audit is the fact that they are carried out, at defined intervals, and their results can illustrate improvement or change over time. The College has adopted the '*Green Campus*' system for environmental conservation and sustainability. There are main three pillars i.e. zero environmental foot print, positive impact on occupant health and performance and 100% graduates demonstrating environmental literacy.

The goal is to reduce CO₂ emission, energy and water use, while creating atmosphere where students can learn and be healthy. Eco Campus concept mainly focuses on the



efficient use of energy and water; minimize waste generation or pollution and also economic efficiency. All these indicators are assessed in process of "Green Auditing of educational campus. Eco-friendly Campus focuses on the reduction of contribution to emissions, procure a cost effective and secure supply of energy, encourage and enhance energy use conservation, promotes personal action, reduce the campus's energy and water consumption and integrate environmental considerations in to all contracts and services considered to have significant environmental impacts. Target areas included in this green auditing are water, energy, waste, green campus and carbon footprint.



AUDITING FOR WATER MANAGEMENT

Water is a natural resource, all living matters depend on water. While freely available in many natural environments, in human settlements potable water is not yet readily available. We need to use water wisely to ensure that drinkable water is available for all, now and in the future. A small drip from a leaky tap can waste more than 180 liters of water to a day that is a lot of water to waste, enough to flush the toilet eight times. It is therefore essential that any environmentally responsible institution should examine its water use practices. Water auditing is conducted for the evolution of facilities of raw water intake and determining the facilities for water treatment and reuse. The concerned auditor investigates the relevant method that can be adopted and implemented to balance the demand and supply of water. It is therefore essential that any environmentally responsible institution examine its water usage practices.

Shree Dnyanraj Mauli Shikshan Seva Mandal, Kalyan

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ACHIEVERS COLLEGE OF COMMERCE AND MANAGEMENT

(Night College)

(Affiliated to University of Mumbai and state of Maharashtra)

Campus Survey Form

Auditing for water

01] List usage of water in your campus

Municipal Water is used for drinking purpose, and Bore well water is used for wash room, Toilets, Cleaning and gardening purpose.

02] What are the sources of water in your campus?

Municipal Water and Bore Well



03] No. of motors used for pumping water

02

04] What is total horse power of each motor?

250/500 horse power

05] How does your College store water?

We have 03 water tanks. Among that 02 is used for drinking purpose and other or for usage purpose.

6] Quantity of water pumped every day (in liters)

2000 liters per day.

07] If there is water wastage, specify why ?

Due to overflow of water tank sometimes it may waste due to negligence on the part of Watchman, But now everyone at our Achievers Campus are aware about it, so they take Utmost precautions.

08] How can the wastage be prevented/ stopped.

Everyone is alert about water wastage so as to prevent overflowing of water.

10] Where does waste water come from?

Overflow of overhead Water tanks.

11] Where does the waste water go?

In the garden area or Rain water harvesting pit.

12] What is the usage of Bore well water in your campus?

For washroom and toilet purpose and for gardens.

13] Write down four ways that could reduce the amount of water used in your Campus.

Checking for leaks in the pipes at Drinking water points.

Checking toilets for leak.

Watch how we water the plants and washing of Vehicles. .

14] Record water use from your campus for last five month

Average 2,500 liters per day.

15] Water charges paid to water connection.

Municipal Water Bill is at Minimum Level and Bore well water attracts only electricity Consumption.



16] No. of water coolers –amount of water used per day.

The College has Four Water cooler having running capacity of 80 Liters each.

17] No. of water taps- amount of water used per day.

08 for drinking purpose, 12 washing purpose, 32 for toilets. (Total 52 taps)

18] No. of toilet, urinals –amount of water used per day.

2 Girls Washrooms and Two Boys Washrooms each having 5 Urinals.

Water Usage per day is around 1100 Liters.

19] Amount of water used per day for garden use.

600 liters average.

20] Does your campus harvest rain water.

Yes.

21] If yes how rain water harvesting is done.

The College follows Surface Runoff Method of Rainwater Harvesting. Around the Campus there are 27 Pits each having a tree planted in to it. The surround land sloping is done in such a way that waste and rain water on surrounding land surface is drained and soaked in these pits. This helps in maintain under ground water level resulting into continuous flow from Bore well through out the year.

22] Is drip irrigation used to water plants outside. (Yes/No (√))

23] Quantity of water used for vehicle cleaning .

Staff vehicles are cleaned once in a week with Bore well water tabs.

24] How often is the garden watered?

Daily using Bore well water

25] Quantity of water used to water in ground.

250 liters

26] Amount of water for other usage.

500 liters a day



27] Area of campus land without tree / building canopy.

Trees are planted in and around campus

28] Is there any water management plan in the campus?

Yes. We use water wisely, ensuring minimum wasage.

29] Are there any water savings techniques allowed in your campus? what are they.

Reusable water bottles campus.

- Use leftover water from a drinking glass to water plants.
- College students are instructed to water plants with the left over of personal water bottles that they carry while leaving the campus.
- Water plants in the early morning/ late evening to decrease the amount of Evaporation.

30] Please share some idea for how your campus would save more water.

- Students admitted at our Achievers Campus are oriented about water conservation.
- Enhanced awareness of water usage
- Sensitizing students for more careful in their usage.
- Using stickers, signs and other awareness tools
- College is notifying simple reminders in high water usage or wastage areas.



AUDITING FOR ENERGY MANAGEMENT

Energy cannot be seen, but we know it is there, because we can see its effects in the forms of heat, light and power. This indicator addresses energy consumption, energy sources, energy monitoring, lighting appliances and vehicles. Energy use is clearly an important aspect of campus sustainability and thus requires no explanation for its inclusion in the assessment. An old incandescent bulb uses approximately 60W to 100W while an energy efficient light emitting diode (LED) uses only less than 100 W. Energy auditing deals with the conservation and methods to reduce its consumption related to environmental degradation. It is therefore essential that any environmentally responsible institution examine its energy use practices.

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Achievers Campus Survey Form

Auditing for Energy Management

1. List ways that you use energy in your college campus (Electricity , LPG, firewood, Petrol, Diesel and other)
-: Electricity and Solar
2. Average Electricity bill amount for each month during the year.
-: 26,300/-
3. For there any energy saving methods employed in your college campus installed? If yes please specify.
-: Yes , The Input monitoring unit is in place to reduce the consumption.
4. How many LED Tube lights has your college campus installed? Mention use. (hours used / for how many days in a month.)
:- LED Tube lights =405



:- 26 Days

5. Energy used by each bulbs has your college campus per month (e.g. 60 watt tube * 4 hours * number of tubes = (Kwh)
:- 18 watt * 6 Hours * 405 = 0.437 Kwh
6. Energy used by each Tube per month (Kwh)
:- 0.0108 Kwh
7. How many fans are installed in your college campus? Mention use (hours used/ day for how many days in a month.)
:- Fans:- 230, 7 Hours/ day , 26 Days in month.
8. Energy used by each air conditioner per month? (Kwh)
:- Not a single Air Conditioner is installed in the Campus. The construction of the building is done with the White Sand from Kutchh (Gujrath). It keeps all the rooms cool throughout.
9. How many computers are there in your college? Mention the use / for how many days in a month?
:- 56 computers in college
:- 26 Days in month
10. Energy used by each computer per month (Kwh).
:- 0.450Watt/ computer
11. How many photocopies are installed by your college campus? Mention use (hours used / days for how many days in a month)
:- One photocopier is used.
12. Energy used by each photocopier per month?
:- 0.800 Watt.
13. How many inverters your college campus installed? Mention used hours/days for how many days in a month.
College has Solar Inverter. The energy is used throughout the day before the regular supply of MSEB. The system facilitates use of solar energy first and any shortfall is used from MSEB Connection. The College has 2 Inverters.
14. Energy used by Solar invertors per month?
:- 5 Kwh
15. No. of street light in your college campus?
:- 6 street lights.
16. Energy used by each street light per month?
:- 0.150 Kwh
17. No. of TV in your college campus?
:- No TV is used.



18. Energy used by each TV per month.

-: No TV is used.

19. Any other items that uses energy.

-: Four Water Coolers placed respectively on each floors.

20. Are any alternative energy sources/ non-conventional energy sources employed/ installed in your college campus.

-: College has Solar Energy Inverters which generates energy from the Solar panels installed on Building tarrace.

21. Do you run 'Switch Off' drills at your college campus.

-: Yes, When turn off appliances when not in use. The floor peons takes care.

22. Are your computers and other equipment put on power saving mode?

-: Yes, Computers green mode used as power saving mode.

23. Does your machinery (TV/AC/Computer Printer etc.) run on standby mode most of the time? If yes then how many hours.

-: Yes ,Maximum time during use.

24. What are the energy conversion methods adapted by your college campus.

-: The minimal use is ensured due to wide size of windows fetching sunlight in each Class rooms and Offices.

25. How many boards displayed for saving energy awareness?

-: 08 Boards at various places in campus.

26. Write a note on the methods / Practices/ adaptations by which you can reduce the energy use in your college campus in future.

-: 1) We turn off lights or appliances when we do not need them.

2) We try to conversing and efficiently using methods of reducing our dependence on rules.

3) Unplugging the appliance when not in use.

4) We adjust our day to day behavior to save energy.

5) We have placed LED Tube light throughout the campus.

6) Whenever possible we try to purchase energy efficient appliances.

Calculations of energy for electrical appliances:-

Appliances	Power used in Watt	Usage per day (Hours)	No. of Appliances	Avg. Kwh per day/ Watt	Avg. Kwh per Month
Tube	18 watt	6	315	0.0438Kwh	114.00 Kwh



FAN	40 watt	7	248	0.0644 Kwh	167.44 Kwh
Computer	450 watt	6	54	1.458 Kwh	379.08 Kwh
Printer	30-50 watt	2	07	0.56 Kwh	1.45 Kwh

AUDITING FOR WASTE MANAGEMENT

Pollution from waste is aesthetically unpleasing and results in large amount of litter in our communities which can cause health problems. Plastic bags and discarded ropes and strings can be very dangerous to birds and other animals. This indicator addresses waste production and disposal, plastic waste, food waste, and recycling. Solid waste can be divided in to two categories: general waste and hazardous waste. General wastes include what is usually thrown away in homes and in College such as garbage, paper, tins and glass bottles. Hazardous waste is waste that is likely to be threat to health or the environment like cleaning chemicals and patrol. Unscientific landfills may contain harmful contaminates that leach in to soil and water supplies and produce greenhouse gasses contributing to global climate change. Furthermore solid waste often includes wasted materials resources that could otherwise be channeled in to better service through repair, and reuse. Thus the minimization of solid waste is essential to a sustainable College. The auditor diagnoses the prevailing waste disposable policies and suggests the best way to combat the problems. It is therefore essential that any environmentally responsible institution examine its waste processing.

Shree Dnyanraj Mauli Shikshan Seva Mandal's

ACHIEVERS COLLEGE OF COMMERCE AND MANAGEMENT

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Achievers Campus Survey Form

Auditing for waste management



1) What is total strength of students, teachers and non teaching staff in your college campus?

	No of Students	No of Teachers	No of Non Teaching Staff
Men	620	02	02
Women	203	12	07
Total	823	14	09

2) Which of the following are available in your College Campus area?

Give area occupied and number.

- No of Classrooms_____28_____
- Office rooms_____11_____
- Garden area_____3300 sq ft_____
- Garbage dump (number)_____10_____
- Playground area_____8100 sq ft_____
- Car/scooter shed area_____1000 sq ft_____
- Toilets(numbers)_____07_____
- Other (specify)_____03_____

3) Which of the following are found near your college campus?

- Municipal dump yard - No
- Garbage heap - No
- Public convenience - No
- Sewer line - Yes
- Stagnant water- No
- Open drainage - No
- Industry – No
- Bus/Railway Station - Yes
- Market/ shopping complex/ public halls =Yes
- Waste - Yes

4) Does your College campus generate any waste?



If so what are they? How much quantity? Number or weight

E-waste - No

Hazardous waste (toxic) - No

Solid waste - No

Dry leaves - Yes

Canteen waste

Liquid waste - No

Glass - No

Unused equipment's - No

Medical waste any - No

Napkins - No

5) Is there any waste treatment system in the college campus?

Two separate dustbins are placed on each floor as : Green for collection of Degradable Waste and Red for Collection of Dry waste.

6) Is there any treatment for toilet/urinals/sanitary napkin waste?

The College has Municipal Sewerage Nalla passing through the campus. Toilet waste is routed through the same.

7) What is the approximate quantity of waste generated per day(in kilograms)

Kitchen

Approximately	Biodegradable	Non-Biodegradable	Hazardous	Other
<1 kg	2	-	-	0.5
>10 kg	-	-	-	-

8) Why waste is a problem?

For us waste is not a problem that way, whatever waste generated in campus is handed over to the Municipal vehicles on daily basis.

9) Whether waste is polluting ground/ surface water?

No

10) Whether waste is polluting the air of college campus?

No

11) How is the waste generated in the college campus managed? (Methods)

- Composting: - No

-Recycling: - Yes

- Reusing: - There are dry leaves due to trees in our campus

- Other (Specify) so we use those leaves as it is. Whatever falls on the floor we spread it near big trees, layer over the soil, This layer remains as it is throughout the summer. When rains arrive, leaves decompose some proportion of nutrients that the tree absorbs from the soil are present in these leaves. These nutrients, when leaves decompose, are returned to the soil.

12) How many separate boxes do you think you would need to put into a classroom to start a waste segregation and recycling campaign?

Mostly two

13) Do you use recycled paper in college?

Yes, most of the papers we use at office are recycled papers only for internal work.

14) Is there any waste wealth program practiced in your college campus?

No

15) How would you spread the message of recycling to others in the community? Have you taken any initiative please specify.

Each time we communicate with our students and the surrounding residents .

16) Can you achieve Zero Garbage in your college? (Reduce, Recycle, Reuse, Refuse) if yes, How?

- Use durable reusable items instead of disposable such as washable cups, plates and cutlery.

- Go paperless in the near future.
- We set printers to automatically print double sided .
- Reduce or remove trash can liners where feasible.

We have given instructions to our teaching and non teaching staffs also regarding reduce, recycle and reuse.

- Instead of printing hard copies of your documents save them to your hard drive or email them to yourself to save paper.
- Make your printer environmentally friendly. Change your printer settings to make double sided pages.
- Use small point fonts when possible.
- Pay your bills e-billing programs when possible to save papers.
- Use paperclips (over staples) when possible.



- Reuse envelopes with metal clasps and reuse file folders by sticking a new label over the previous one.

AUDITING FOR GREEN CAMPUS MANAGEMENT.

Unfortunately biodiversity is facing serious threats from habitat loss, pollution, over consumption and invasive species. Species are disappearing at an alarming rate and each loss affects nature's delicate balance and our quality of life. Without this variability in the living world, ecological systems and functions would break down, with detrimental consequences for all forms of life, including human beings. Newly planted and existing trees decrease the amount of carbon dioxide in the atmosphere. Trees play an important ecological role within the urban environment, as well as support improved public health and provide aesthetic benefits to cities. In one year, a single mature tree will absorb up to 48 pounds of carbon dioxide from the atmosphere, and release it as oxygen. The amount of oxygen that a single tree produces is enough to provide one days supply of oxygen for people. So while you are busy studying and working on earning those good grades all the trees on campus are also working hard to make the air cleaner for us. Trees in our campus impact our mental health as well; students have shown that trees greatly reduce stress, which a huge deal is considering many students are under some amount of stress.

Shree Dnyanraj Mauli Shikshan Seva Mandal's

ACHIEVERS COLLEGE OF COMMERCE AND MANAGEMENT

(Night College)

(Affiliated to University of Mumbai and state of Maharashtra)

Achievers Campus Survey Form



Auditing for Green Campus Management

- 1) Is there a garden in your college campus?
No, but trees are planted around the campus and Tree Pots are placed in and around the campus.
Each Table in the College office is placed with a small in-house plants.
- 2) Do students spend time in the garden?
Yes
- 3) List the plants in the garden with approx. number of each species.
Attached herewith
- 4) List the species planted by the students with numbers.
Attached herewith
- 5) Whether you have displayed scientific names of the trees in the campus?
Yes
- 6) Is there any plantation in your campus? If yes specify area and type of plantation.
Plantation is done in the College campus
- 7) Is there any vegetable garden in your college campus? If yes, how much area is covered?
No vegetable garden in the campus.
- 8) Is there any medicinal garden in your college campus? If yes, how much area is covered?
No
- 9) How much water used in the garden? (mention the source and quality of water used)
500 daily throughout in a week. Borewell water is used for watering the plants.
- 10) Who is the in charge of garden in your college campus?
Mr. Siddhi Chavan
Mr. Mahendra Bhusari
Mr. Shrikant ,
Mr. Vijay Dalvi .
- 11) Are you using any type of recycle water in your garden?
Mostly overflowing water we use in the garden.
- 12) List the name and quantity of pesticides and fertilizers used in your college garden.
Very limited use of pesticides.
- 13) Whether you are using organic farming in your college campus? How?



No

- 14) Do you have any composting kit in your college campus? If yes, What are you doing with the compost generated?

No

- 15) Give the number and names of the medicinal plants in your college campus.

Basil plant is placed around each tree.

- 16) Any threatened plant species planted/conserved?

No

- 17) Is there any nature club in your college campus?

Achievers Nature Club

- 18) Are there any fruit yielding plants in your college campus? If yes, Details of the trees planted.

Yes Mango.

- 19) Are there any groves in your college campus?

No

- 20) Is there any irrigation system in your college campus?

No

- 21) What is the type of vegetation in the surrounding area of the college?

The surrounding is thickly populated slum area.

- 22) What is the nature awareness program conducted in the campus? (2019-2020)

Attached.

- 23) What is the involvement of students in the green cover maintenance?

Students participate in plantation as well as they take care of various plants.

- 24) What is the total area of campus under tree cover? Or under tree canopy?

3000 sq ft

- 25) Share your ideas for further improvement of green cover.

Nature awareness program are regularly conducted in the Achievers Campus. This is aimed at creating greater awareness, understanding and empathy of students with and for the environment? Through this initiatives it is hoped that every students who goes through academic years will get at least one opportunities during three years. The nature experience for students and teachers has huge potential to rigger their sensitivity towards nature appreciation and conservation, leading to positive environmental actions at different levels.



Environmental awareness program are also well conducted in the Achievers Campus. Environmental awareness is to understand the fragility of our environment and the importance of its protection. Because we feel that promoting environmental awareness is an easy way to become an environmental steward and participate in creating a brighter future for our students. For this we organise various events in the campus. We organized lectures inviting experts in this field. Various renowned faculties from other colleges and those who are expert in the field delivered lectures regarding environmental awareness programs. Even we do plantation on various occasions.

Even College have published its own bimonthly magazine "Achievers Express" related to environmental awareness. We covered following main issues in our magazine.

Tree Plantation and it's Adoption: - NSS Volunteers regularly organizes Tree plantation in and around the campus. Students are allotted duties to adopt and nurture the tree. Appreciation is given for the better grown trees.

Welcome of each and every guests with a Sapling: - It is a regular practice at Achievers Campus that every guest is felicitated with a Bassil (Tulsi) Plant and a holy book of Bhagwat Geeta. We do not offer Bouquets of flowers or costly gifts.

SOME OF THE PRACTICES WE FOLLOWED IN OUR CAMPUS.

- Instead of vehicle take public transportation, walk or use bicycle to cut down green house grass emission.
- Buy reusable products such as glass bottles, reusable bags and reusable cups. Avoid buying non-disposable goods such as paper towels, plastic bottles and plastic bags.
- Support local business and farmers. Buy organic and pesticide free food when you can.

Trees planted in the campus

- Neem



- Gulmohar/ Flame trees
- Karanja
- Bahava
- Pimpal
- Pam
- Banian tree
- Cycus
- Lyly
- Rubber plants
- Xmas trees
- Tuls

AUDITING FOR CARBON FOOTPRINTS.

Commutation of stakeholders has an impact on the environment through the emission of green house gases in to the atmosphere consequent to burning of fossil fuels such as petrol. The most common green house gases are carbon dioxide, water vapor, methane, nitrous oxide and ozone of all the green house gases, carbon dioxide is the most prominent greenhouse gas, comprising 402 ppm of the Earth's atmosphere. The release of carbon dioxide gas into the Earth's atmosphere through human activities is commonly known as carbon emissions.

An important aspect of doing an audit is to be able to measure your impact so that we can determine better ways to manage the impact In addition to the water, waste, energy and biodiversity audits we can also determine what our carbon footprints is, based on the amount of carbon emissions created. One aspect is to consider the distance and method traveled between home and college every day. It undertakes the measure of bulk of carbon dioxide equivalents exhaled by the organization through which the carbon accountings are done. It is necessary to know how much the organization is contributing towards sustainable development. It is therefore essential that any environmentally responsible institution examine its carbon footprints.

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Achievers Campus Survey Form

Auditing for Carbon Footprints

1) What is total strength of students, teachers and non teaching staff in your college campus ?

	No of Students	No of Teachers	No of Non Teaching Staff
Men	620	02	02
Women	203	12	07
Total	823	14	09

2) Total number of four wheelers used by the stakeholders of the college campus. (per day)

2

3) Total number of cycles used.

15

4) Number of two wheelers used (average distance travelled and quantity of fuel and amount used per day.)

40 (1/4 liter per day)

5) No of cars used (average distance travelled and quantity of fuel and amount used per day)

2 (3-5 km)

6) Number of person using common (public) transportation (average distance travelled and quantity of fuel and amount used per day.)

80

7) Number of visitors with vehicles per day .

10 to 25

8) Number of generators used per day (hours) Give the amount of fuel used per day.

NIL

9) Number of LPG cylinders used per day.

One Per Month

10) Use of any other fossil fuels in the college (give the amount of fuel used per day and amount spend)



No

11) **Suggest the methods to reduce quantity of use of fuel used by stakeholders**

/students/teachers/non-teaching staff of the college campus.

- **Drive only when needed:-** The best way to reduce the fuel consumption is to simply drive your vehicle less. Drive your vehicle only when you really need to. If you only need to travel a few blocks, consider walking or even riding a bicycle. Not only you will save money at the pump, the exercise will certainly do you some good.
- **Inculcating Gandhian Philosophy :-** Achievers College every year celebrates Gandhi Week with the basic aim of inculcating Gandhian Values of *Padyatra and simple living and high thinking*.
- At Achievers campus we try to conduct carbon consumption awareness programs on carbon emission, this will help individual as well as social level to avoid air and noise pollution in the campus due to vehicles.

METHODOLOGY OF GREEN AUDITING

The purpose of the audit was to ensure that the practices followed in the campus is accordance with the Green Policy adopted by the institution. The criteria, methods and recommendations used in the audit were based on the identified risks. The methodology includes:-

- Preparation and filling up of questionnaire,
- Physical inspection of the campus,
- Observation and review of the document,
- Interviewing responsible persons and data analysis,
- Measurements and recommendations.



The methodology adopted for this audit was a three step process comprising of:

1. **Data Collection-** In preliminary data collection phase, exhaustive data collection was performed using different tools such as observation. Survey communicating with responsible persons and measurements.

Following steps were taken for data collection.

- The team went to each department.
- Data about the general information was collected by observation and interview.
- The power consumption of appliances was recorded by taking an average value in some cases.

2. **Data Analysis-** Detailed analysis of data collected include :

- Calculation of energy consumption,
- Analysis of latest electricity bill of the campus,
- Understanding the tariff plan provided by the Maharashtra state Electricity Board.
- Data related to water usages were also analyzed using appropriate methodology.

3. **Recommendation-** On the basis of results of data analysis and observations, some steps for reducing power and water consumption were recommended.

The above target areas particular to the College was evaluated through questionnaire circulated amongst the staff for data collection. Five categories of questionnaires were distributed. The formats of these are given in this report.



THE AUDIT TEAM

1	Dr. Mahesh Bhiwandikar	Chairman, College Development Committee
2	Dr. Sangita Girish Naik	Act Principal/ Campus Director
3	Ms. Sophia D'Souza	Vice Principal
4	Ms. Sana Khan	IQAC, Chairperson
5	Ms. Sairabanoo Shaikh	HOD Commerce, Faculty
6	Ms. Siddhi Chavan	Faculty and Green Audit Coordinator
7	Ms. Harsha Kulkarni	HOD/BAMMC
8	Ms. Pooja Talekar	Admin Officer
9	Mr. Mahendra Bhusari	Office Clerk and ISO Coordinator
10	Mr. Ritesh Jadhav	Librarian
11	Mr. Bhaiyasaheb Nikam	Attendant



AUDIT OBSERVATIONS

Control Objective	Control(s)	Audit Observation
Water Management	Repair sources of water leakages, such as Dripping Taps.	Regular checking and maintenance of pipe is done to control water wastages .
	Minimize wastage of water and use of electricity during water filtration process if used such as Aqua Guard filter.	Each floor is fitted with Aqua Guard and Water Coolers system in the campus.
	Use an efficient and hygienic water storage mechanism to minimize the loss of water during storage.	There is tube well in the campus so water is percolating in it. Even there is rain harvesting system in the Campus
	Install water recycling mechanism	Yes
Energy Management	Appreciate that it is preferable to purchase electricity from a company that invests in new sources of renewable and carbon neutral electricity.	In our campus we use electricity wisely, our campus is having more natural light and usage is limited so in the coming phase we may go for another option other than MSEB i.e. SOLAR.
	Looking to the possibility of on site micro generation of renewable electricity.	In future we may go for renewable electricity.
	Give preference to the most energy efficient and environmentally sound appliances available, this includes only using energy saving light bulbs.	Yes, Use of LED lights is implemented whenever it is possible to save energy in Achievers Campus.
	Encourage Staff, Students and Guest to save energy through visible reminders and information to increase awareness.	Yes, The College has put several reminder notes in class rooms and other relevant places to turn off electrical



	This particularly concerns turning off electrical appliances when not in use.	appliances when not in use.
	Monitor and understand the importance of different sources of College energy consumption.	The College tries to put the main switch off on Sunday and public holidays .



	Ensure that all electronic and electrical equipment's and computers are switched off when not in use and is generally configuring power saving mode when not in use, such option is available.	It is practiced regularly and switching off computer and appliances is practiced when not in use.
Green Campus	Established a garden in the campus.	There are lots off trees planted in the campus, each time we plant trees in the campus (list attached) college has started to develop garden In and around it's compound.
	Encourage the faculties and students to plant trees in the campus.	Since long Teachers and students are planting trees in the campus.
	Minimize the use of fertilizers and pesticide in college grounds, opting for th use of vermin compost produced on site wherever possible.	We are applying bio products only.
	Ensure that all cleaning products used by college have a minimal detrimental impact on the environment i.e. biodegradable and non-toxic.	Most of the time we use bio products
Waste Management	Dispose the chemical waste generated from the laboratories in a scientific manner.	There is no chemical waste generated in the campus.
	Make full use of all recycling facilities provided by KDMC and Private Suppliers including glass cans, white coloured and brown paper, batteries, print cartridges and furniture.	That way there is no E Waste collection.
	Compost or cause to be composted all waste, green waste and non recycled collection from kitchens, gardens, office.	That way we don't have that much of waste in our campus. So there is no waste treatment system. But there are dry leaves due to trees in the campus, so we use those leaves as it is whatever fall on the floor we spread it near big trees, layer



		over the soil, this layer remains as it is throughout the summer. When rains arrive leaves decompose some proportion of nutrients that the tree absorbs from the soil are present in these leaves. These nutrients, when leaves decompose are returned to the soil.
	Recycle or safely dispose of dry wastes, computer and electrical appliances.	We use durable reusable items instead of disposable, such as washable cups, plates and cutlery.
	Provide sufficient, accessible and well-publicized collection points for recyclable waste, with responsibility for recycling clearly allocated.	The college has set up separate bins to ensure proper segregation and collection of waste.
	Make specific arrangements for events, such as community events, seminars and conference in order to both arise consciousness among students and other to minimize the waste produced and maximize what is recycled/ reused.	The college organized several lectures for students and community to ensure both consciousness and awareness amongst students and community members.
	Dispose all waste whether solid or other wise in a scientific manner and ensure that it is not release directly to the environment	Yes, The college dispose all waste in a scientific manner and ensure that it is not released directly to the environment.
	To ensure and reuse of kitchen waste (from canteen and hostels) and garden waste.	The remaining food in Canteen is Sent to Orphanage.

RECOMMENDATIONS

Criteria	Recommendation
Maximize the renewable flow energy to initiate healthy and continues flow of energy.	The College shall install more numbers of Solar Panels on Roof Top
To channelize flow resource	Solar power need to used wisely
Maximize the proportion of waste that recycle and minimize the quantity of non recyclable refuse.	E-waste shall be collected regularly Computers shall be upgraded instead of Replacement to avoid e-waste.
Reduce energy consumption, especially of energy derived from fossil fuels.	The minimal use of Ground floor area and floor corridors shall be ensured.



THE POST AUDIT STAGE:

The post-audit stage ensures formulation of Draft findings and sent for management response . Since the audit is done internally ,it was important to ensure management's approval for the draft . After getting draft approval, the audit team proceeded for final report formulation.



AUDIT FRAME WORK AND DETAILED FINDINGS

The above audit framework issued for conducting Green Audit 19-20. The framework also lists the findings and observations for every criterion.



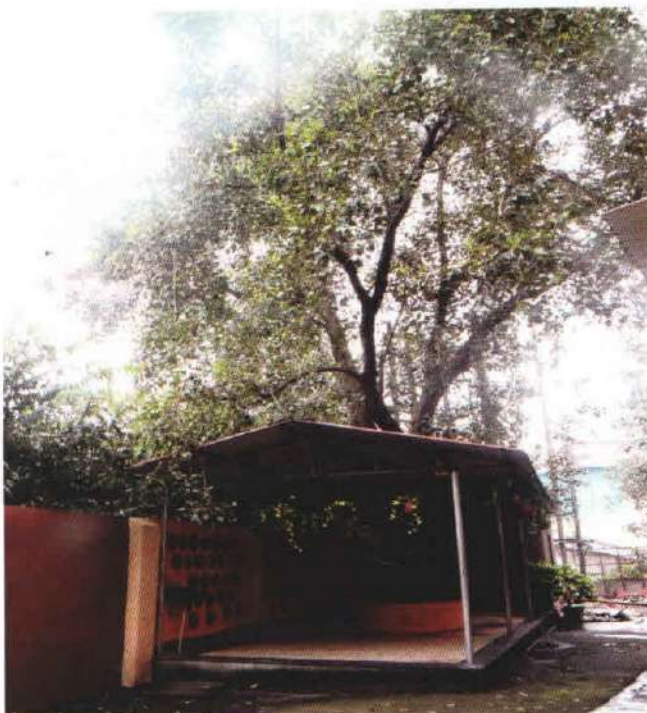
ACHIEVERS COLLEGE OF COMMERCE AND MANAGEMENT

(NIGHT) KALYAN

VISUALS OF THE COLLEGE GREEN CAMPUS



SIDE VIEWS



CANTEEN AREA



FRONT VIEW

**ACHIEVERS COLLEGE OF COMMERCE AND MANAGEMENT
(NIGHT) KALYAN**



GLIMPSUMS OF COLLEGE BUILDING

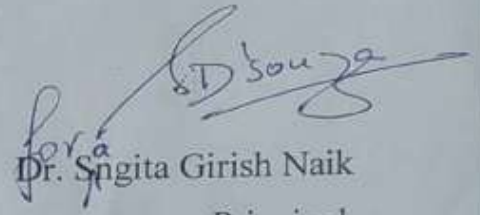
DECLARATION

WE AGREE WITH ALL THE OBSERVATION AND RECOMMENDATION IN THIS REPORT.

SIGNATURE OF PRINCIPAL/CAMPUS DIRECTOR



Dr. Mahesh Kamalakar Bhiwandikar
Chairman



Dr. Sngita Girish Naik
Principal

