Namita Education & Welfare Society's

SIDDHARTH COLLEGE

(B.M.M., B.M.S & B.Com)

(A Minority Institute, Affiliated to University of Mumbai)

At:Boradpada, Post:Chargaon, On Badlapur-Mhasa Road, Tal:Ambernath, Dist.:Thane – 421 503.
Contact Nos.: 0251-2670232, 8550961581, 9930501961   Website: www.siddharthcollegebadlapur.edu.in
email id : principal@siddharthcollegebadlapur.edu.in,   namitaeducation@gmail.com

Date: 14.07.2023

CERTIFICATE

This is to humbly submit that:

DVV Point No. 2

2. Please provide Policy document on environment and energy usage.

Reply:

Policy Document on environment and energy usage has been provided.

DVV Point No. 3

3. Please provide Reports of the Audits.

Reply:

Audit Reports have been provided.

DVV Point No. 4

4. Please provide Certificate from the external accredited auditing agency (preferably government, concern department of affiliating university).

Reply:

Certificates from ISO Certified Agency have been provided.

DVV Point No. 5

5. Please provide Geo tagged photographs with caption and date.

Reply:

Photographs with caption and date provided.

DVV Point No. 6

6. Please provide Certificates of the awards received from the recognized agency.

Reply:

No wards have been received by the College form any recognized agency.

DVV Point No. 7

7. Please provide any other relevant proof for the selected options, if available.

Reply:

Necessary documentary evidences have been provided.

PRINCIPAL

Namita Education & Welfare Society's

SIDDHARTH COLLEGE

(B.M.M., B.M.S & B.Com)

(A Minority Institute, Affiliated to University of Mumbai)

At : Boradpada, Post:Chargaon, On Badlapur-Mhasa Road, Tal:Ambernath, Dist.:Thane – 421 503.
Contact Nos.: 0251-2670232, 8550961581, 9930501961
Website: www.siddharthcollegebadlapur.edu.in
email id : principal@siddharthcollegebadlapur.edu.in,   namitaeducation@gmail.com

GREEN POLICY

Our College is known for having a "Clean and Green Campus", where teaching and environmentally friendly practises move together to encourage sustainable and eco-friendly behaviours both on campus and off. The idea of a "green campus" presents the institution with a chance to take the initiative in reinventing its environmental culture by fostering environmental ethics among the faculty, non-teaching staff and students. Also, the college promotes a "Clean and Green" campus by encouraging staff and students to adopt, put into practise and spread eco-conscious behaviours throughout their daily lives.

1. SCOPE OF THE POLICY

The policies for a green campus, energy efficiency and the environment will create innovative new co-curricular and extracurricular activities that inspire students to take the initiative in enacting good change. These programmes demand a thorough examination of all administrative and infrastructure tasks from the perspectives of energy efficiency, environmental sustainability and sustainability.The focus is thrown on initiatives undertaken for clean campus, landscaping, clean air, energy efficiency equipments, solid waste management, e-waste management, Green audit, energy audit and environmental audit.

2. OBJECTIVES:

Constantly increase the effectiveness and efficiency of the use of all resources including water and energy and to bring down the size of waste created while recycling and recovering waste whenever practical.

- Plastic free campus.
- Periodic energy and environmental audits
- Reduce the usage of paper in administration by adhering to the e-governance policy.
- Preserve the campus' ecological systems and natural resources.
- Include environmental issues in policies, plans and programmes for outreach and social development initiatives.

3. ENVIRONMENTAL POLICY OF THE INSTITUTE

The institution has made a commitment to managing its campus in compliance with obligations to advance a sustainable environment.

3.1 Clean Air Initiatives

Instead of driving a personal vehicle, the institute encourages students and staff to take public or college bus which will reduce air pollution. The students are given stringent orders to keep the campus tidy. Tobacco usage and smoking are strictly prohibited on campus, making it a "Smoking Free Campus".

3.2 Landscaping Initiatives

A college's ideals can be seen physically manifested in the campus environment, just like they are in its buildings. It contributes significantly to campus life by offering areas for study, recreation, sporting events, leisure, and aesthetic enjoyment. Green campus landscaping also controls runoff and helps to purify and cool the school air. Campus landscaping efforts are an excellent approach to raise environmental awareness because they are so visible and accessible. The employees and kids benefit from the clean, cold air that the landscape of trees and plants provides, creating a relaxing atmosphere.

4. CLEAN CAMPUS INITIATIVES:

1. As part of its commitment to actively coordinating cleanliness initiatives in keeping with the Swachh Bharat Abhiyan's goal. The general outlook is as under:
2. The "Swachh Bharat Abhiyan" initiatives will play a significant role in all the community service the college's NSS volunteers perform.
3. The college campus's cleaning effort will be promoted to staff members and students.
4. Prominent rallies will be held to raise awareness.
5. Remove any waste materials, including damaged furniture and outdated equipments.
6. The college campus and its surrounding regions will be kept clean on a yearly basis by staff and student pledges.
7. Make a commitment to waste management and campus cleanliness, especially during college events.

5. INFRASTRUCTURAL INITIATIVES

5.1 Energy Efficiency

From time to time, variety of energy-saving initiatives, such as replacing CRT monitors with LCD monitors. Energy audit of the institute and the campus has been done. Proper ventilation has been made in every classroom. UPS systems for computers have been fitted.

5.2 LED Bulbs: To save energy, the institute has installed as many LED lamps and tubes as possible around the campus. LED bulbs are used to illuminate the entire institute. It reduces energy use and lowers maintenance expenses. A properly planned, high-tech LED lighting system can benefit the school financially and in terms of safety. In addition to financial gains, there are additional advantages, such as going green and conserving energy.

5.3 Gadgets that save energy and are energy-efficient:

The tips provided below has been used to conserve electrical energy.

1) Turn off monitor when not in use
2) Log off instead of shutting down the computers.
3) Use daylight instead of unnecessary lighting.
4) When not in use, keep the lights off in the lecture halls, conference rooms, and auditoriums.
5) Only use the fans as necessary.

6. RAINWATER HARVESTING SYSTEM FOR WATER CONSERVATION:

The Institute is dedicated to this endeavour to restock the groundwater table by engaging in rainwater harvesting. The groundwater is replenished and recharged by this practise.

6.1 Waste Management Processes

The institute is committed to reducing and managing the waste produced on campus and canteen so as to have as little impact as possible on the environment. The precise actions listed below will be implemented to its contribution to environmental protection.

6.2 Solid Waste Management

> The institute makes a concerted effort to ensure that garbage is produced on campus as little as possible. In order to deliver holistic education that also has a positive influence on the environment, the institute will embrace practises that will lessen the generation, and manage solid waste using the following methods:
> Consistently practise the 3Rs (Reduce, Reuse, and Recycle) of environmental friendliness.
> Support the digitization of attendance and internal assessment records to reduce the usage of paper.
> Encourage teachers and students to employ cutting-edge teaching-learning techniques.
> Take steps to raise awareness among students about food waste and strategies for reducing it.
> Reducing the consumption of processed foods.
> Planning solid waste management workshops for students.

6.3 Liquid Waste Management

It is made clear to students that conserving water also means conserving their future. For the proper execution of liquid waste management, the following techniques are used.

> In-house plumbers respond quickly to address leaks and water wasting.
> Maintain water-tight fixtures.
> Reduce water use by building more Indian-style toilets rather than western-style toilets.

Keeping a caretaker on staff to take prompt action to halt any water leaks from taps, pipelines, tanks, toilet flushes, etc

6.4 Plastic-Free Campus

The Institute has been performing the majority of its obligations in terms of managing solid waste. The college has enacted a strict rules on the use of single use plastics in its facilities in order to turn it into a "Plastic Free Campus" in light of the Government of India's decision to outlaw all single use plastics due to the harmful effects of plastic use and pollution.

Instructions have been issued, through National Service Scheme, to all students to refrain from bringing non-biodegradable plastic items to the institution, including plastic bags, cups, plates, small drinking water bottles, straws, and sachets, through NSS-led awareness-raising campaigns on the detrimental effects of single-use plastics. Also, it motivates the children to make their homes plastic-free by educating their families about the negative impacts of plastics. In order to create a clean and green campus, these techniques are implemented into the institutional planning and budgeting procedures.

6.5 Green audit, energy audit, and environment audit implementation:

The Institute regularly undertakes a "green audit" to identify its strengths and weaknesses and to further its long-term sustainability objectives. It is able to quantify the quantity and kind of garbage. Waste minimization facilities or recycling programmes can be employed. It will raise awareness of health issues and advance environmental ethics and ideals. Utilising less resources will result in financial savings thanks to green audits. In accordance with the relevant laws, policies, and standards, the institute also intends to undertake a green audit to identify, measure, characterise, and prioritise a framework of environmental sustainability.

A gardener is hired to maintain the campus's cleanliness and greenness. An energy audit has been done The significance of cutting back on energy use cannot be emphasised. The energy audit will find energy waste thanks to its specialised technologies. Such an examination frequently exposes numerous problems that result in large energy losses that the institute is unable to discover. These issues frequently have simple, inexpensive fixes that offer substantial savings.
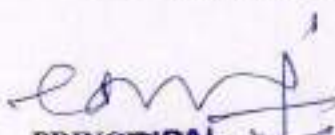
6.6 E-Waste Management

The issue of properly disposing of electronics is a side effect of their widespread use. The College is dealing as how to deal with the problem of electronic garbage, or e-waste, on campus in an efficient and economical manner. Although it's common for people to throw away things due to wear and tear, technological improvements have sped up the creation of e-waste as students, teachers, and administrators frequently update to better technology. The college uses the most cutting-edge and environmentally friendly e-waste disposal techniques, such as an annual maintenance contract to regularly check on the efficiency of CPUs and monitors before disposing of them in accordance with professional advice. CPUs, hard drives, and junk laboratory equipment are all periodically sent to the vendor in accordance with an MOU. The Departments sell scrap from their old, functional computers, printers, and other equipment. Suppliers recondition and recharge UPS batteries.

6.7 Awareness Initiatives

To make sure that all stakeholders are aware of the policy's objectives and take part in its implementation, outreach and education are essential. To facilitate the efficient implementation of the Green Campus, Energy, and Environment policies, the institute supports and encourages awareness campaigns, seminars, workshops, and other interactive activities.

PRINCIPAL
Siddharth College
At Boradpada, Po. Chargaon,
Tal Ambarnath Dist Thane (M.S)
Pin - 421 503

ISO 50001:2018 Certificate Of Registration

Geotek Global Certification Pvt. Ltd.

hereby certify that the organization

Namita Education & Welfare Society's
Siddharth College of BMM, BMS and BCom

Address : N. S. Knowledge Centre, Badalapur - Mhasa Road, Boradpada, P. O. Chargaon 421503, Taluka Ambernath, District Thane, Maharashtra, India

has implemented and maintains an **Energy Management System** for

Scope :

To Evolve and Impart Comprehensive Higher Education to the Students of Under Graduation & Post-Graduation, in Arts, Commerce & Science, Multimedia & Mass Communication and Management Studies.

An audit was performed and proof has been furnished that the management system fulfils the requirements of international standard detailed below ...

Standard	: ISO 50001:2018
Certificate No.	: 22.GGCS.IN.500150
Certification Date	: 01st March 2023
Cert. Expiry Date	: 28th February 2026

Geotek Global
Certification Pvt. Ltd.

Reg. No. IN.EnMS10.0523

imab
International Management Accreditation Board

Chief Executive Officer
Geotek Global Certification Pvt. Ltd.
102, Raj Legacy, Near Bramhand Phase 5, Off. GB Road,
Thane (West), Pin 400607, Maharashtra, India

Geotek Global Certification Pvt. Ltd. is accredited by International Management Accreditation Board (Singapore)
51, Goldhill Plaza, #07-10/11, Singapore 308900

ISO 14001:2015 Environmental Management System

ISO 14001:2015 Certificate Of Registration

Geotek Global Certification Pvt. Ltd.

hereby certify that the organization

Namita Education & Welfare Society's
Siddharth College of BMM, BMS and BCom

Address : N. S. Knowledge Centre, Badalapur - Mhasa Road, Boradpada, P. O. Chargaon 421503, Taluka Ambernath, District Thane, Maharashtra, India

has implemented and maintains an **Environmental Management System** for

Scope :

To Evolve and Impart Comprehensive Higher Education to the Students of Under Graduation & Post-Graduation, in Arts, Commerce & Science, Multimedia & Mass Communication and Management Studies.

An audit was performed and proof has been furnished that the management system fulfils the requirements of international standard detailed below ...

Standard	: ISO 14001:2015
Certificate No.	: 22.GGCS.IN.140216
Certification Date	: 01st March 2023
Cert. Expiry Date	: 28th February 2026

Geotek Global
Certification Pvt. Ltd.

Reg. No. IN.EMS20.0512

imab
International Management
Accreditation Board

Chief Executive Officer
Geotek Global Certification Pvt. Ltd.
102, Raj Legacy, Near Bramhand Phase 5, Off. GB Road,
Thane (West), Pin 400607, Maharashtra, India

Geotek Global Certification Pvt. Ltd. is accredited by International Management Accreditation Board (Singapore)
51, Goldhill Plaza, #07-10/11, Singapore 308900

The continual validity of the certificate is conditional to compliance with the terms and the conditions of Geotek Global Certification Pvt. Ltd. - Certification Scheme Regulation. Validity of the certificate may be verified on following websites : www.geotek.co.in and accreditation body's website : www.imacb.com

SIDDHARTH COLLEGE
(B.M.M., B.M.S & BCom)

Boradpada, Badlapur West, Dist.Thane – 421 503

ENERGY AUDIT MANUAL
2022-23

INDEX

I. __INTRODUCTION__

> "Our objective is to provide a high-quality education to students, the vast majority of them come from nearby tribal areas. The College aspires to offer them with core undergraduate and postgraduate degrees needed for a wide range of job opportunities"

It is with great pleasure that we welcome you to Namita Education and Welfare Society's (NEWS) Siddharth College (B.M.M, B.M.S and B.Com). Namita Education Society was established by Shri.Nagesh Sambhaji Jadhav, a visionary way back in 1997 and the college got affiliation from University of Mumbai in 2012. Also, the college got the status of religious minority by Government of Maharashtra in 2009.

The vision of our college is to provide quality education to rural and tribal students and to empower them to become self-reliance, responsible, competitive and competent citizens in the society. Despite our college is located in a rural, hilly and tribal area, our college runs in full swing in streams. We are also blessed with green campus of Five and half acres of land with natural sceneries.

Our college offers the Mumbai University courses of BA., B.Sc., B.Com., BMS, BAMMC and M.Com courses. The Namita Education and Welfare Society also runs few other institutions. We have a good team of highly qualified and dedicative teaching and non-teaching staff. Each class is effectively guided by their mentors. We are well equipped with good infrastructure, library and laboratories.

The college also provides ample opportunities to sports and co-curricular activities. We have few international sports students to our credit. Our students are sincerely involved in National Service Scheme (NSS) too. You will find variety of information about all our activities through this website.

The college has also formed various Statutory Cells like SC/ST Cell, OBC Cell, Grievance Redressal Cell and Anti-ragging Cell.

We look forward to serve our students in achieving their overall personality development. We assure you that the Siddharth college would provide you all qualities of community's expectation.

2. Objective:

- To study the present level energy consumption and
- To suggest corrective measures to reduce the consumption

3. Electrical Maintenance Committee

The following internal committee headed by the Principal is formed to look after the saving and usage of electric consumptions.

Sr. No.	Name of Member	Department	Designation
1	Dr. R. P. Paul	Principal	Chairman
2	Mr. Pawar Jayesh R.	Physics	Convenor
3	Mr. Shaikh Taqdeer Ali P.	Chemistry	Member
4	Mr. Jadhav Nandkumar V.	Sociology	Member
5	Mr. Kedar Navnath R.	Administration	Office Superintendent

4. Details of Electric appliances used by the college:

The college is fitter with 100+ tubes, 41 LED Bulbs and 75 fans. In addition to this, the college has been using 3 air conditioners, 37 computers, one Canon copier, one Duplicator for printing question papers, one inverter and one Water pump. The details of the same is given as below.

Details of Electric appliances used by the college:

Dept.	No. of Fans	No. of Tubes	No. of LEDs	Computer	Printer	A.C.	Inverter	Photo copy machine
Principal Chamber	3	3	2	2	2	1		1
Ground Floor	1	1	4					
Store	2	2	2					
Ladies Wash Room	1	1	2					
Staff Room	3	4	3	1	1			
IQAC Cabin	1	1	2	2	1	0		
Canteen Areas	2	1	1	0	0	0	0	
Office	4	4	2	2	1	0	0	0
Reading Room	1	2	2	0				
Library	8	4	4	2	0		1	
Computer Dept.	4	6	2	29	1	2		
Chemistry Lab-1	3	9	1	0	0	0		
Dept. of Botany	2	9	2					
Security Cabin	1	4	1	0	0	0		
First Floor	5	2	1					
Sport Room	2	2	1					
Classroom No. 1	6	8	3	0	0	0	0	0
Classroom No. 2	2	4	1	0	0	0	0	0
Classroom No. 3	2	4	2	0	0	0	0	0
Classroom No. 4	2	4	1	0	0	0	0	0
Classroom No.5	2	4	0	0	0	0	0	0
Classroom No.6	2	2	1	0	0	0	0	0
Classroom No.7	2	2	1	0	0	0	0	0
Classroom No.8	2	2	1	0	0	0	0	0
Classroom No.9	0	0	0	0	0	0	0	0
Classroom No.10	2	4	1	0	0	0	0	0
Classroom No.11	2	4	0	0	0	0	0	0
Classroom No.12	2	4	3	0	0	0	0	0
Classroom No.13	2	4	1	0	0	0	0	0
Classroom No.13	2	2	2					
Classroom No.14	2	4	2					
Total	**75**	**101**	**41**	**37**	**5**	**3**	**1**	**1**

5. Estimated load of power consumption:

Electrical Devices	Total No.	Watt	Total Watt
Fluorescent Tube	101	40	4040
LED Tub	41	20	820
Fan	75	90	6750
Computer	37	60	2220
Printer	7	250	1750
A.C.	3	1440	4320
Inverter	1	325	325
Exhaust Fan	2	45	90
Projector	2	100	200
Focus	3	100	300
Xerox	1	1250	1250
Total			**22065**

Pump 5 HP	1	3750	3750
Pump 1 HP	1	746	746
		Total	**4496**

Total	26561
Total Load	26.561KWH

Total Load = 26.561 KW/hr

6(a) Details of Electric Bills issued by MSEDCL:

There is only one type of electricity connection being power supplied by MSEDCL. Monthly electricity bill is served by MSEDCL against electricity used and the bill has been paid by college.

6(b) Instrument used to measure Electric consumption:

The institute has used Meco 27-auto Digital Clamp Meter to measure the electric consumption.

The cost of power is worked out by consuming up total KWH of all connections & their amount over the year 2022-23. By dividing total amount by total works out the average cost of power per KWH.

Month	Connection No & Tariff Category	
	LT Cons. No.-490010179979	
	Tariff-LT-VII B-I	Load KVA-23
May-22	2502	33825.02
Apr-22	2665	34801
Mar-22	2482	32348
Feb-22	1790	24226
Jan-22	1674	36992
Dec-21	2294	29235
Nov-21	1614	21966
Oct-21	2256	29926
Sept-21	1572	21510
Aug-21	1871	24239
Jul-21	1738	23286
Jun-21	1445	20154
	23903	332508.02
Average cost of power per KWH works out to be Rs. 13.91072334		

6(c) Analysis of connected load in campus other than motive power:

As viewed from below table, it understands that lightening & fan load has dominance in total load mix & shares more electric consumption. This load has most potential to identify energy saving opportunity.

Electrical Devices	Total Units	Total KW	% Load
Lighting Load	142	5.15	23.02
Fan	75	6.75	30.16
Computer	65	3.9	17.42
Printer	8	2.94	13.14
A.C.	3	3.32	14.81
Inverter	1	0.33	1.45
Total	294	22.38	100

6(d) Analysis of connected Load of motive power:

Pump 5 HP	1	3750	3750
Pump 1 HP	1	746	746
		Total	**4496**

Total power connected for motive power = 4.496 KWH

7) Details of Energy Saving:

a) Identified Energy saving opportunity:

Energy saving opportunity Details-There is major load of lighting & fan in college campus. Hence it is focused for identification of energy saving opportunity.

b) Energy Saving from motion sensor proposal:

To install motion sensor at Principal office, Seminar Hall

Energy Saving

Total lighting & fan load of Principal office, Seminar Classroom KW	5.000
Existing operating hours per day	7
Assumed operating hours after installing motion sensor per day	3
Total annual existing energy consumption in KWH/ Annum for 300 working days	2390
Total annual proposed energy consumption in KWH/ Annum for 300 working days	3398
Total annual proposed energy consumption in Rs for 300 working days and taking (13.9 Rs/ KWH)	15420
Total Annual existing consumption in Rs for 300 working days and taking (9.0 Rs / KWH)	4755
Total annual energy saving by using motion sensor in KWH	200
Total annual energy saving by using motion sensor in Rs	2800
Total amount of investment for 1 no. of motion in Rs. (Rs.1000)	3000
Payback period in months only	6
Estimated list of proposed system in year	3

8) Future recommendation:-

a. Planning to replace all lights with LED.
b. To install motion sensor at Principal office and Seminar Classroom
c. To install Solar panel at least to reduce one- third of the present consumption.
d. Department wise KWH meter installation for all laboratories and other departments has been planned to fix the responsibility of every individuals using energy.
e. Periodic notices will be circulated and displayed on Notice Boards of Students and staff.

9) Acknowledgement

Department of Physics Mr. Pawar Jayesh R. Siddharth College Boradpada is very much thankful to Principal, **Dr. R.P. Paul** for motivating us for energy audit.

(PAWAR JAYESH. P)
Department of Physics
Convenor
Electric Maintenance Committee

Namita Education & Welfare Society's

SIDDHARTH COLLEGE

(BMM. BMS & B.Com)

Boradpada, Post.Chargaon, Dist.Thane – 421 503

GREEN AUDIT REPORT 2022-23

1. INTRODUCTION :

Namita Education and Welfare Society has been established 1997 under the able guidance Shri. Nagesh Sambhaji Jadhav, former Assistant Commissioner of Police Mumbai.The Society started Degree College in Boradpada in July, 2012 Siddharth College of BMM, BMS & BCom. The college is now a full-fledged multi-faculty institute with student strength of about 1400. The college has junior wing running various streams like Arts, Science & Commerce. This College offers Bachelors' degree program in three streams – Arts, Commerce and Science with specializations in various subjects. We also offer B.M.S.& BAMMC. Course in subjects like Journalism, and Retail management. The college also has Post graduate course of M.Com.

This college is spread about six acres of beautiful lush-green area encompassing institutions catering to the academic needs of over one thousand students aspiring for Higher Education. Staff of the college always keeps itself updated with recent academic knowledge. College has well-trained administrative staff and excellent infrastructure.

2. ENVIRONMENTAL POLICY OF THE COLLEGE :

The college protects its own environment by maintaining it green with the help of about 150 large and many small plants in campus. Our staff and students always try to keep the campus pollution free in all possible ways.

The management, administration and the students of the college look after the environment carefully. Every year, during rainy season, we perform tree-plantation and carefully look after the planted trees. As a result, now we have about 300 trees in our campus. Besides, we are having eco-friendly units like rain-water-harvesting units, wind-mill, vermin-composting unit, biogas plant, etc.

We have our own environmental policy that includes-

➢ To comply with all requisite environmental legislations and government guidelines, wherever applicable.

➢ To ensure that there is optimum utilization of resources and waste generation is minimized.

➢ To integrate environmental concerns in decision-making, e.g. purchasing policy, teaching-learning process, communications, etc.

➢ To implement an environment management system.

- To strive towards continual reduction in ecological footprint of the college as it grows.
- Education and training of students, staff and society in environmental issues and the environmental effects of their activities.

Monitoring progress and reviewing environmental performance against targets and objectives on a regular basis.
- To maintain the campus pollution-free by all possible ways like maximal use of green-energy like solar energy, wind-mill energy, natural light, etc.

3. GREEN AUDIT COMMITTEE:

Sr. No.	Name of Teacher	Role
1	Mr. Chandrakant Kamble	Chairman
2	Mr. Sandip Karnekar	Member
3	Mr. Navnath Kedar	Member
4	Mr. Santosh Sangewar	Member
5	Mr. Jadhav Nandkumar	Member
6	Mrs. Swati Narwade	Member
7	Mr. Pawar Chandrakant	Member
8	Mr. Ashwinikumar Kanojiya	Member
9	Ms. Suvarna Padir	Member
10	Mr. Tejas Padir	Member

4. CONSTITUTION FOR GREEN AUDIT:

The Green Audit Committee will act as per the environmental policy and shoulder the responsibility for maintaining and protecting the environment in and around the college with the help of students, staff and society. It will work in various fields like-

- ❖ Waste Management
- ❖ Soil Management
- ❖ Water management
- ❖ E-waste management
- ❖ Bio-diversity and threatened species preservations

- ❖ Energy use and conservation
- ❖ Eco-friendly techniques
- ❖ Noise Pollution
- ❖ Air Pollution
- ❖ Paper less & Plastic less operating procedure
- ❖ Green area management and clean campus
- ❖ Fire safety

5. AIR POLLUTION MANAGEMENT

A. Periodic awareness programmes for students, society and staff:

Our college is continuously conducting the awareness programs for staff, students and society for protecting and maintaining the environment. The awareness is increased by arranging road shows, rallies on various issues, related to environment and health. The students and faculty members are involved in the activities through extension programs like NSS. Subject related to environmental awareness given in to Elocution Competition organized by College.

NSS volunteers had participated in Kuhadpada, Nov 2022 and spread awareness amongst the varkari devotees about harmful effects of addiction, use of plastic, benefits of cleanliness, etc. through street-plays.

NSS volunteers participated in 'Clean Boradpada -' survey as a part of cleanliness drive of Government of India and Plastic Mukta Abhiyan on Nov. 2022

Department of NSS also organized programmes on Plastic Waste Management in seminar hall on 27th Nov 2022. Express the how dangerous plastic use in future generation.

5 B)Carbon footprint

An important aspect of undertaking an audit is to be able to measure our impact on environment 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 our carbon footprint based on the amount of carbon emissions.

By evaluating the CO_2 emissions in the campus, it becomes easy to devise the strategies for sustainability of the ecosystem.

Carbon footprint evaluation was performed in two phases:
  ➢ Phase 1: Defining the carbon footprint parameters
  ➢ Phase 2: Quantifying the carbon footprint.

In this report we have identified and defined carbon footprint inventory parameters such as electricity, human, waste, paper, LPG etc. The amount of CO_2 emitted by the various footprint parameters was calculated by using standard CO_2 emission factors.

Sr. No.	Carbon footprint Parameters	Amount of CO_2 Emission (tons/year)
1	Human	739.25
2	Electricity	344.06
3	Waste	327
4	LPG	69.51
5	Transport	58.83
6	Paper	24.7
Total		**1563.35**

Table No. 3: Carbon Footprints of college campus

Carbon footprint study reveals that 1563.35 tons CO_2 are emitted within a year in the campus. Survey reveals that Plants present in the campus sequester about 227.610 tonnes of CO_2 per year. There is huge difference in CO_2 emitted and CO_2 Sequestered in the campus.

C. Plantation programme throughout the year:

College arranges plantation programme through NSS unit, Students & staff not only in college campus but in various villages of Boradpada, Kuderan, Waryachi, etc. which are adopted by our college for the sake of environment awareness. College has planted and maintained large number of plants through NSS unit.

Tree plantation had been done at Waryachi Wadi , Tal. Ambernarh , Dist. Thane, by the NSS volunteers on 7th August 20. 40 plantlets had been planted in the village

NSS volunteers of Siddharth College of BMM, BMS & BCom with Collaboration of V. B. Deshpande College of Commerce (Night) Mulund. Jointly participated in Tree Plantation Programme Boradpada, Tal. Ambernath, Dist. Thane, during 13th – 15th August 2022 and planted 50 plants in and around the village. NSS volunteers also established a garden around the MJ Phule school in village Boradpada during the Independence Day Festival .

NSS volunteers participated in winter camp arranged at village Boradpada, Tal. Abernath, Dist. Thane , during 23rd – 29th Nov. 2022 and planted 50 plants in and around the village. NSS volunteers also established a garden around the MJ Phule school in village Boradpada, and Zaade lava Zaade Jagva Mohim.

D. 'No Smoking, No Tobacco' in campus area:

College is completely smoking and tobacco free campus. Students and staff members are aware about addiction. We have displayed the boards like **'No Smoking' 'No Tobacco', No Gutkha'** etc. at several places in the campus for prohibiting from such habits.

E. Display boards in college campus:

Various boards for increasing the awareness on the environment, noise control, tobacco free campus, conservation of energy, recycling of resources, tree plantation and environmental policy of college are displayed for all the stakeholders.

Boards of increasing awareness about ecofriendly attitude like 'SAVE ENERGY' 'SAVE TREES SAVE LIFE', 'वृक्षवल्ली आम्हा सोयरी' 'पर्यावरण वाचवा' etc. are displayed in the campus.

F. Eco-ventilators/Exhaust fans in laboratory and library:

All the laboratories and library are having good ventilation and exhaust fans.

G. Maintain data for flora of college campus:

Siddharth College of BMM, BMS & BCom, Boradpada is having green campus, which comprises of following flora:

LIST OF PLANTS IN COLLEGE CAMPUS

Sr. No.	Marathi Name	English Name/ Botanical Name	No. of units
1.	*Awla*	*Emblica officinalis* Gaertn.	02
2.	*Sonchafa*	Golden Frangipani	01
3.	*Amba*	Mango	51
4.	*Mehendi*	Henna	02
5.	*Ashok vrusksh (Saracca Ashoka)*	Ashoka	19
6.	*Oomber*	Fig Tree	03
7.	Peru	Guava	11
8.	Pandra Chafa	Plumeria (White Frangipani)	08

9.	*Naaral*	Coconut	42
10.	*Limboo*	Lemon	04
11.	*Karvant*	Carissa Carandas	05
12.	*Sagwan*	Teak	33
13.	*Palas*	Butea Monospermaa	10
14.	*Kudhha*	Wringtia tentoria	02
15.	Kuilu	Kuilu	02
16.	*Ela*	Ela	02
17.	*Papaiyya*	Papaw or Pawpaw	06
18.	*Shisar*	Shisar	02
19.	*Bor*	Ziziphus Mauritiani	02
20.	*Kaaju*	Cashewnut	03
21.	*Kadu neem*	Curry Leaf	03
22.	*Jambul*	Java Plum of Indian Blackburry	08
23.	Tagar	Yucca	01
24.	*Phanas*	Jackfruit	01
25.	Nilgiri	*Eucalyptus globulus* Labill.	04
26.	*Shindi*	Phonix, Sylvestris	02
27.	*Badam*	Almond	03
28.	*Bamboo*	Bamboo	04
29.	*Gulmohar*	Delonix, Regia, Royal poinciana	01
30.	*Chikoo*	Sapodilla	02
31.	*Wad*	Ficus benghalensis L.	01
32.	*Pimpal*	Ficus religiosa L.	01
33.	*Shevga*	Moringa oleifera Lam.	02
34.	Kumbai	Kumbai	02
35.	*Dalimb*	Pomegranate	01
36.	Aain	Turminalia Eliptica	02
37.	*Shid*	Tumarind	01
38.	*Dhamda*	Anogissus Latifolia	01
39.	*Banni*	Acaia Ferruginea	01

40.	*Jaswand*	Hibiscus rosa sinensis L.	06
41.	*Gulab*	Rosa indica L.	05

Beauty of Flowers in College Campus

Canna indica L.

Canna indica L.

Canna indica L.

Rosa indica L.

Rosa indica L.

Rosa indica L.

Gerbera jamesonii Hooker

Gerbera jamesonii Hooker

Gerbera jamesonii Hooker

Gerbera jamesonii Hooker

Catharanthus roseus L.

Catharanthus roseus L.

Tecoma stans L.

Tabernaemontana divaricata L.

Bellis perennis L.

Plate No. 1

Chrysanthemum indicum L.

Gaillardia aristata L.

Verbena officinalis L.

Nerium indicum L.

Plumbago zeylanica L.

Polyanthes tuberose L.

Lantana camera L.

Lantana camera L.

Lantana camera L.

Lantana camera L.

Ixora coccinea L.

Tecoma capensis Thunb.

Pentas lanceolata Forssk.

Pentas lanceolata Forssk.

Pentas lanceolata Forssk.

Plate No. 2

Ixora coccinea L.

Stachytarpheta jamaicensis L.

Pelargonium hortorum L.

Medicinal Plant Garden

Ficus carica L.

Aloe vera L.

Bryophyllum pinnatum L

Cymbopogon citrates L.

Costus igneus N.E.Br.

Mimosa pudica L.

Asparagus racemosus L.

Datura metel L.

Plate No. 3

Pelargonium hortorum L.

Ruta graveolens L.

Mentha spicata L.

Trachyspermum ammi Sprague

Curcuma longa L.

Withania somnifera L.

Piper nigram L.

Ocimum gratissimum

Plate No. 4:

Wildlife-Birds

Plate No. 5

NOISE POLLUTION MANAGEMENT

A. Silence zones in college:

Various display boards are present in library, auditorium and other places for awareness to maintain silence in the college.

Display boards at-

Location	Display board
Library	
Auditorium	
Classroom	
Laboratory	

B. Noise control during any programme in college:

The college has one huge gate for entry and exit of students. It is continuously monitored by the security guards. Entire campus, all class rooms, library & auditorium are under CCTV surveillance. This helps to keep the entire campus noise-free. In addition to this, security guards and members of Discipline Committee ensure smooth entry and exit of students without any noise and nuisance.

C. Controlling entry and exit of students and their discipline monitoring.

1. Our college has a huge main gate & another small gate in back-side of administrative building i.e. 'Á'kklu Hkou'. During the IQAC Youth Festival, National & International Conferences, Workshops, Competitions, we use the main gate through which the students can come and go easily. Main gate has been divided into two gates, one for entry and other for exit. This helps to avoid the possible chaos during rush hours.

2. Besides, main road in the campus is provided with two foot-paths. Students are instructed to use right side foot-path by girls and left one by boys. This helps to avoid possible chaos during rush-hours.

3. We have the entry register for the visitors visiting our college. They have to register their name, time of entry and exit at the gate and then they are allowed to enter/leave the campus.

4. We have hired the security agency. Personnel of this agency in association with discipline committee of the college take care of all the security aspects including discipline in the campus. For this purpose, 3-5 security guards are in action every day including holidays.

D. No pressure horns for vehicle:

Our college staff members and students do not use pressure horns and is not permitted to the students.

6. HUMAN HEALTH AND SAFETY MANAGAMENT

A. Group insurance for staff and students:

To ensure the safety of the staff members, college has adopted the group insurance and accident insurance scheme. At the time of admission, as per guidelines of University, provision of group insurance to students is also in practice. Many students have been benefitted with this scheme in the past.

B. Periodic health check-up:

College organizes periodic health checkup for the students and the staff every year in association with Preventive Health Checkup Badlapur. For this purpose, we have MoU with Primary Health Centre, Boradpada. As a part of this MoU, our staff members also enjoy concessions in medical charges in the hospital run by this foundation. Besides, as per guidelines of UGC and University, health checkup is compulsory to First Year UG & PG Students.

Department of Commerce and Management in Coordination NSS and IQAC arrange check-up drives of various medical parameters like hemoglobin, Blood group, Blood Sugar, Blood Pressure, etc. for students & Staff on various occasions like World Health Day, College festival, etc. College also organizes the Blood Donation camps in association with Rotary Club, Badlapur and Thalassamia and Health Check up Thane.

C. Awareness campaign on human health:

College organizes Guest lectures, Workshops for Staff & Students to increase awareness about their health. also NSS/Cultural Unit Creates the Awareness with help of Street-plays, Rallies etc. Every year NSS unit organizes a camp in nearby villages and plans to clean the village campus and various lectures are organized to create Awareness among villagers.

D. Sanitary napkin-vending machines in ladies room:

These are available in Girls common room. The use of sanitary napkins is very important for girl students and ladies staff for maintaining their health hygiene.

E. Yoga / Meditation for staff & Students :

College campus provides the facilities of indoor and outdoor games for the students, staff and the citizens of Boradpada. Our sports faculty provides proper guidance and we are motivated to do the daily exercise of Yoga / Meditation in the college. On 6th June 2022, Smt. Vidyabai Sathe, Smt. Pushpalata Yadav,Smt. Pratibhatai Dhamale yoga trainer Vidhyadham Yoga Institute, Badlapur . Her team give speech and Practical Training on Yoga & health. She explain the importance & yoga for healthy & free life also exhibited different poses in yoga.

F. Awareness campaign for Society:

NSS, & Cultural units of our college regularly arrange street-plays and rallies for increasing awareness in society on Dengue and other diseases. Besides, awareness campaigns against communicable diseases like AIDS, TB, etc. are conducted in coordination with Boradpada Municipal Corporation. College also tries to increase the awareness on such and other social issues through competitions like poster-presentation, wallpapers, etc.

G. Arranging Blood donation camps:

The, NSS unit of Siddharth College of BMM, BMS & BCom, Boradpada organizes blood donation camps in association with Badlpur Blood Bank.

Year	No. of students who donated blood
2018-19	23

Blood Donation Camp

fixed in the Shrikant Bhavan (Administrative Building), library, Store, Jr. College and all science departments of the college for safety purpose.

I. SOP's on safety in laboratory and first aid box:

All the laboratories are equipped with SOP's, Do's Don't' for the laboratory safety. The College conducted regularly Disaster Management Workshop to trained students for first aid and emergency treatment in various Disaster situations. First aid boxes are fixed in administrative office and indoor stadium & all laboratories of the college.

J. Emergency phone numbers:

All the emergency phone numbers are displayed at the entrance.

Sr. No.	Office	Contact No.
1.	Principal	9930501961
1.	Office of the College	02112-222405
2.	Bhagwati Hospital	07559445555
3.	Badlapur Police Station	100 / 02512-690297
4.	Fire Brigade	101 / 02112-222493
5.	Ambulance BNP	02112-222307
6.	Damini Pathak In-Charge Arti Shendge	99220194000
7.	Bus Stand	02112-222236
8.	Badlapur Nagar Palika	02112-221307
9.	Security (Vijay)	706653642
10.	Badlapur Railway Station	02112-222383
11.	MSEB Enquiry	02112-223338
12.	Badlapur Post Office	02112-229555

Table No. 7: Important Phone numbers

K. Controlled area for storage of hazardous chemicals:

Instructions -

- **Safety work instruction when using hazardous chemicals**
  - ➢ While using hazardous chemicals Don't eat, drink, food beverages & wait until your work is done. You need wash your hands clean & neat.
  - ➢ Make sure you know where the nearest firefighting equipment is located.
  - ➢ The Hazardous substances should always be in accordance with the M.S.D.S. specification.
  - ➢ Only use the product for its intended purpose never misuses the product for anything other than its intended purpose.

- **Personal chemical safety rules:**
  - ➢ Wear gloves & protective glasses (Safety goggles) wherever necessary while handling hazardous chemicals.
  - ➢ Follow instructor's guidelines.
  - ➢ Proper disposal of chemical wastes.
  - ➢ Strict use of apron / lab-coat in the laboratory.
  - ➢ Strict use of safe-shoes.

7. SOIL POLLUTION MANAGEMENT:

A. Vermi-compost unit in College:

Use of Bio-fertilizers is eco-friendly and economy method to raise the plants in natural habitats. In connection with this, our college has established two vermi-composting units in the campus. Biodegradable wastes like garden foliage, waste food, etc. are decomposed in these units to produce good quality vermin-compost. This compost is used in the college garden.

The details of the vermin-composting units are given as follows –

- Establishment Year: June, 2012
- Size: 5x12 feet & 5x7 feet
- No. of vermin-composting beds: 01
- Production capacity: 1.5Tons/Year.

C. Rain water harvesting

Our college is having rain water harvesting system to conserve the rain water. The earth water level is increased with Rain water harvesting which helped to have water to our college boar. It increases natural storage of water, and helps the college in getting water for various purposes.

The college has established a rainwater harvesting unit in the year 2018 with the capacity of 90,000 liters. This underground plant is next to the Department of Botany. College has another roof-top rain water harvesting plant with the capacity of 1000 liters. That tank is placed in front of chemistry laboratory and that water is used in chemistry laboratory.

.

Our NSS unit regularly participates in Water harvesting Programmes Such as Water cup of Villages from Kuderan Valley .

Siddharth College (BMM. BMS & B.Com)

NSS volunteers participated in Special summer camp arranged at village Kurhadpada.

Total Supply and Consumption of Water by Campus

Source	Quantity Supplied (Liters)/Year	% of Supply/Year
Bore well	2,25,70,000	**100%**

Table No. 8: Water consumption

Purpose of Consumption – Drinking water, Toilets, Laboratories, Bathing and Toilet water for , Irrigation for college garden etc.

Water Purifiers from College -

Sr. No.	Place	RO/UV	Number	Capacity
1	Administrative Building	RO	2	50 X 2 = 100 lit.
2	Senior College	RO	4	50 X 4 = 200 lit.
3	Ladies Room	RO	1	50 lit.
4	Chemistry Dept	UV	1	-
5	Library	UV	1	-

Table No. 9: Details of Water purifiers

D. Plastic free environment:

Attempt of our college is to keep the campus free from plastic as much as possible. We increase the awareness amongst students and staff members regarding the same by display boards and other progrmmes.

At present our college does not have plastic dumping yard in the campus. But, college has made available the Penguin-dustbins to collect plastic and garbage in the key-places like girls' waiting room, administration building, girls' hostel, Auditorium, etc.

8. OTHER SECTORS FOR ENVIRONMENT MANAGEMENT:

Reuse and recycling

Waste avoidance and Reduction

Eco- friendly disposal
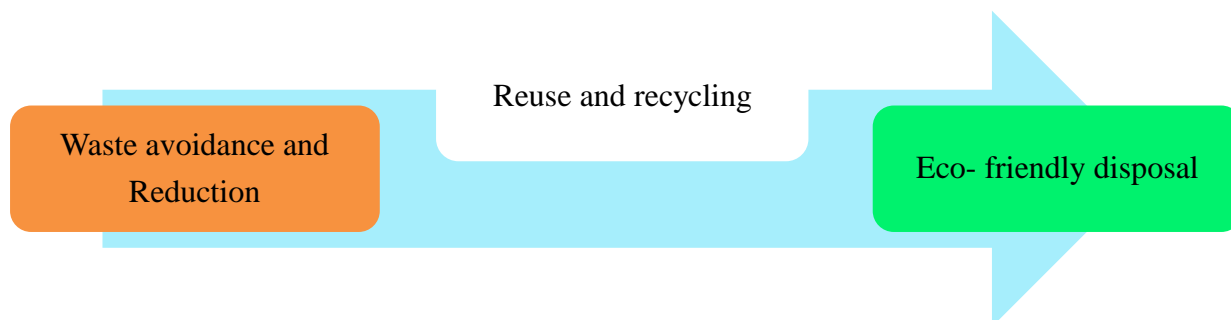
Three-tier approach of waste management

A. Waste management:

Chemicals and e-waste

College has a facility of ETP plant for effluent from Chemistry, Botany, Zoology, Microbiology department.

e-waste –

- E-Waste materials are kept in a separate store-room with a dead stock register.
- All the departments are instructed to submit the information of the damaged or outdated computers, CDs and other e-equipments.
- These e-waste equipments are sent to the college central store.
- Sorting of e-waste is done by central store.
- These e-equipments are sold out by means of a tendering process.

Sr. No.	Department	In Working		Not in working	
		Computer	**Printer**	**Computer**	**Printer**
1	Physics	01	00	1	00
2	Chemistry	02	01	-	-
3	Mathematics	01	01	01	-
4	Botany	02	00	01	-
5	Library	8	01	10-	01
6	Commerce	05	01	01	-
7	Journalism	02	01	01	-
8	Administration	05 01laptop	03	-	-
9	History	01	01	-	-

10	English	02	01	-	-
11	Political Science	02	01	-	-
12	Computer Lab	32	02		
	TOTAL	*53* *Lap-01*	*13*	*15*	*01*

Table No. 10: List of computers and printers in college.**C. Use of LED bulbs in college:**

Principal's Office, Office of IQAC, Administrative Office, Library, Auditorium, Guest Rooms, Indoor Stadium, Ladies Common Room, Virtual Classrooms, Language Lab, Computer Labs, Science Lab, Departmental Offices, and all classrooms have LED bulbs to save energy.

Table No. 15: List of tube-lights and bulbs.

Sr. No.	Particular	Total
1	Fluorescent Tube lights	08
2	Tube light LED (24W)	31
3	LED light (22W)	28
4	LED light (15W)	34
5	CFL	9
6	Tube light LED (36W)	1

D. Conducting energy audit:

Last energy audit was conducted for March-2016. In near future, we are about to conduct energy audit of our college. It will help us in maintaining our energy use in the college campus.

E. Dustbins in the premises:

Dust-bins have been kept in the college at several places. Waste collected in those bins is disposed-off at regular intervals with the help of garbage-disposal vans of the municipality.

Each laboratory and department is provided with dustbins. This helps to maintain the campus garbage-free.

Approximately, 250 dust bins are in use in the college campus.

F. Waste control in canteen:

There are two types of waste
- ➢ Dry waste
- ➢ Wet waste

Dry waste –
- • Non-biodegradable material such as Plastic wrappers and bags, broken glass pieces, dishes, etc.
- • Biodegradable material such as Paper cups, Paper dishes etc.

  Dry waste is collected by waste pick-up van.

Wet waste –
Wet Waste especially from kitchen, such as vegetable refuses; food scraps etc. are disposed-off in biogas and Vermi-compost plant.

G. No uses of plastic in canteen:

College canteen uses paper plates& cups, newspapers, utensils so as to control the uses of plastic in the college campus. It has helped in keeping the campus plastic free.

H. Use of dust proof chalks:

All the classrooms and laboratories are fitted with green and white boards with dust free chalks and marker pens.

I. Minimum use of Photocopy/printing:

In college Maximum data is converted into soft copies and procedures are digitalized which minimizes the use of printing papers. We also put warming stickers on each Photocopy/ Printing machine to use. The maximum working procedures are paperless. We take the already one sided Photocopy papers in use to avoid the maximum use of papers.

9. Interpretation and Outcome of the Audit- SWOT Analysis

Strengths, weaknesses, opportunities and threats (SWOT) analysis is a standard tool in decision-making and planning. It is an efficient method for identification and analysis of strong and weak points and for examining the opportunities and threats in a certain domain. Strengths and weaknesses of a system are determined by internal elements whereas external forces dictate opportunities and threats. Advantages of SWOT analysis include simplicity in understanding, ease in use, and efficiency. It is recognized that if correctly applied, SWOT is an appropriate technique for identification of recommendations for organizations. In the given case, SWOT analysis was conducted to analyze the existing gaps and to prepare a comprehensive environmental management plan for the College.

A thorough assessment of the existing situation was conducted through the various parameters defined for SWOT analysis and the opportunities and weaknesses were then built into the plan. This analysis helped to provide a logical framework for analysis of the given situation and design strategies and tactics that were in tandem with accessible resources as well as technical competency. Through this analysis, the team was able to account for the existing environment-friendly initiatives at the college, and prepare a plan that will benefit in planning the proper use of resources in future.

It has been used in this given study with an aim to see how the EMS to be implemented should be shaped in order to take into account the existing concerns related to environment.

SWOT analysis has been conducted based on the initial environmental review and results show that the college has a lot of strengths which it can build upon during implementation of the EMP. Weaknesses and threats have also been identified for which remedial action can be taken through the EMP. The SWOT analysis serves as the foundation for drafting the environment policy of the Siddharth College BMM,BMS and BCom
, Boradpada.

Strength, Weaknesses, Opportunities and Threats Analysis (SWOT)

Domain	Strength	Weaknesses	Opportunities	Threats
Green Office (Environmental awareness program)	College engaged in environmental awareness programs for staff and students by delivering expert lectures, street plays, poster & model Presentation. Institute conducts environmental awareness programs amongst the students and society through NSS and cultural unit.	Partial establishment of Green Office concept.	Green Audit can be done every year. Full establishment of Green Office. The blue print of five years eco-friendly campus plan to be prepared.	
Domain	**Strength**	**Weaknesses**	**Opportunities**	**Threats**
Legislation/ laws	Institute is following all necessary laws and ethics in context to environment protection.		Green Office concept may help in this regard.	
Domain	**Strength**	**Weaknesses**	**Opportunities**	**Threats**
Energy	We use energy efficient systems, Energy-saving practices like use of natural light, LED lamps, renewable energy like solar, wind power, biogas unit.	CO_2 emission due to consumption of energy has not been taken into account.	Maximum utilization of renewable energy. Complete replacement of CFL by LED bulbs.	Use of fuel-powered electricity generator during power-outage hours causes air pollution.

Domain	Strength	Weaknesses	Opportunities	Threats
	All buildings of campus are naturally well ventilated & illuminated. Building design prevents heating during summer. Naturally operating roof-top exhausts are installed wherever necessary.			
Water	We have rainwater harvesting system with good capacity. Institute is providing drinking water to students and staff purified with RO system and cooled with water coolers.	Partial availability of waste water management. We do not have water-recycling facility at our hostels. Use of RO based water purifiers generates large quantity of waste water.	The wastewater treatment facility can be developed. Waste water to be used for landscaping purpose. Water consumption monitoring system may be installed at every node. Use of IR water-purifiers instead of RO based purifiers.	Boradpada is located in rain-shadow region. Due to less rain-fall, water shortage is a constant threat in common.
Domain	Strength	Weaknesses	Opportunities	Threats
Waste	We have ETP installed to treat waste water generated in chemistry, botany and zoology laboratory Solid waste is decomposed in the form of vermi-compost and biogas.	No availability of treating the bio-waste water generated in microbiology laboratory.	Vermi-compost plant can be operated on large scale Waste segregation can be carried out and paper	Accidental leakage/spill of hazardous waste from microbiology laboratories may cause some problems.

Domain	Strength	Weaknesses	Opportunities	Threats
	Maximum reuse of papers is in practice. Waste paper is sold to the agencies with assurance of recycling		waste generated at campus may be recycled. Concept of paperless administration may be implemented as e-governance policy.	
Biodiversity	Out of 6 acres of campus 2 acres are under canopy Institution has developed lush green campus by planting large number of plants around 120 plants. Plantation of the campus absorbs around 130 tons of CO_2 emitted by various sources. Bird nesting sites, fernery and medicinal plant garden has been established. We celebrate the birthdays as well as welcome the guests by offering them plantlets/saplings.	Plantation is not adequate as compared to carbon foot print Non availability of additional space for plantation	Concept of green roof can be implemented in the Campus. Development of biodiversity park, hanging garden and seed & gene bank Indigenous plants should be planted on large scale	Limited space availability for plantation in proportion of increasing number of students. Due to this, CO_2 sequestering cannot be done to the expected limit.

	On occasion of inauguration of any programme, we water the potted plants instead of lighting the oil-burning diya. We have established the butterfly garden in which huge variety of butterflies is attracted due to the nectar and host plants.			
Domain	**Strength**	**Weaknesses**	**Opportunities**	**Threats**
Air quality & transportation	We have satisfactory plantation in the campus that help to sequester the emitted CO_2 to the maximum limit. Besides, our botanical garden has oxygen park where we have large number of oxygen emitting plants like holy basil, croton, etc.	Staff and students use fuel powered individual vehicles. Lack of public transportation system from bus-stand to college.	Car & bike sharing, maximum use of bicycle, and observing no-vehicle day at regular intervals PUC check-up camp can be arranged at regular intervals. Attempts to start the public transport system between bus-stand and college. Allowing only the vehicles with BS-IV stage compliance in the campus.	Increasing tendency of students towards use of fuel-powered vehicles is a measure threat. This may lead to increased CO_2 emission. Use of fuel-powered electricity generator during power-outage hours causes air pollution.
Domain	**Strength**	**Weaknesses**	**Opportunities**	**Threats**
Community	NSS unit of the college arranges winter-camps in various adopted villages from	Number of villages adopted by college	Adopting more villages under recently launched	Students participating in such activities may suffer

	Boradpada Village and undertakes various programmes like tree-plantation, cleanliness drive, organic farming, and health awareness camps etc. which are helping in improving the environment value of those villages.	appears to be less as compared to the number of students enrolled in college.	scheme- 'Unnat Bharat Abhiyaan' and trying to make more eco-friendly villages.	in their academic study-time.
	NSS volunteers participate in annual pilgrimage event- 'Pai Dindi' and try to increase the awareness about cleanliness, ill-effects of plastic, addiction, etc. through street-plays.			
	NSS volunteers and NCC cadets help the local police and public health department by arranging and participating in 'Road-safety' drives, Pulse-polio drive, blood-donation camps, etc.			

11. Future Plan

- Establishment of Green Office Concept.

- Green audit should be carried out every year.

- The blue-print of five-year plan should be prepared for eco-friendly campus

- Establishment and implementation of policy to overcome increased use of smart phones in the campus in order to avoid IR emission.

Environmental domains

Air management

- Appeal will be made to students and staff for maximum use of shared transportation facility.

- Use of public transport is encouraged.

- College will encourage the students & staff to use bicycles. 'Cycle-Day' will be observed with a frequency of once in a month.

- Tree plantation has been planned in five villages adopted under the scheme 'Unnat Bharat Abhiyan' started by MHRD..

- PUC check-up camp is planned in the October-2018 for the vehicles coming in the college campus. This camp will be arranged in association with RTO, Kalyan and local vehicle agency.

- Street-play will be arranged is association with cultural department of our college to increase the awareness against air pollution.

- As a part of students' project under the compulsory subject- Environmental Awareness, we are planning to allot the survey projects on various topics like use of Chula, eco-friendly agricultural practices, water, soil, air and noise pollution, etc. to the second year students of undergraduate program.

- We are contemplating the idea of making it compulsory to plant the five trees by the first year students and look-after those till completion of their graduation.

- College can arrange various programs like street-plays, eco-weeks, no-vehicle day, poster presentation, model preparation, quiz competition to increase environmental awareness among the students & society on world environmental day.

Noise Management

- Establishment of noise pollution measurement system in college.

- Use of microphones, ICT rooms will help in noise management.

- Silence Zone can be created around the college so that horn-honking, use of loud-speakers will be prevented in and around the campus.

Human Health and Safety

- Yoga/Meditation for staff/ Students at least once in a week

- Health center will be established in the campus.

- Awareness campaign on human health & organ donation for students, society & Staff.

- Blood donation camps will be arranged on more occasions.

- BMI checkup for students and staff.

- Conducting Fire Safety Audit

- Controlled area for storage of Hazardous chemicals

- Fire alarm in college campus.

- MoU with hospitals.

- Minimal use of hazardous chemicals.

Soil /Water Pollution Management

- Implementation of water management and recycling program with full efficiency.

- Monitoring system for consumption of water can be installed at every node.

- Rain water harvesting mechanism has to be implemented at large scale.

- Establishment of separate Plastic Dumping yard in college.

Energy management

- Quantitative targets would be undertaken for reduction in energy consumption.

- To adopt various energy saving policies such as Promoting use of renewable energy, five star rated energy saver equipment's / instruments etc.

- Energy generation through installation of solar panels and wind mills will be undertaken.

Waste management

- Priority will be given to eco-friendly brands followed by those that are recyclable or made from recycled material for purchases.
- Use of paper cups will be discouraged and people will be motivated to use their own mugs/cups instead of paper cups.
- On-campus use of plastic bags will be discouraged.
- Paper usage will be minimized in various ways. Double-sided printing option can be used at all terminals with access to printers.
- Communication will be encouraged through social media like WhatsApp to minimize the paper use.
- Waste segregation will be carried out strictly; organic waste will be composted in-house (biological treatment has proposed for biodegradable waste) in future and the manure will be used for the gardens in the campus.
- E-waste management program can be implemented more effectively by various practices like e-paper office, use of ICT, single window system, etc.
- Dust-bins will be kept in each class-room.

Date: 20th Dec. 2022.

Mr.Kamble Chandrakant B
Chairman,
Green Audit Committee.

APPROVED
R. M. JAIN
Lead Auditor

PRINCIPAL
Siddharth College
At. Boradpada, Po. Chargaon
Tal. Ambarnath, Dist. Thane (M.S)
Pin - 421 503

ISO 50001:2018 Energy Management System

ISO 50001:2018 Certificate Of Registration

Geotek Global Certification Pvt. Ltd.

hereby certify that the organization

Namita Education & Welfare Society's
Siddharth College of BMM, BMS and BCom

Address : N. S. Knowledge Centre, Badalapur - Mhasa Road, Boradpada, P. O. Chargaon 421503, Taluka Ambernath, District Thane, Maharashtra, India

has implemented and maintains an **Energy Management System** for

Scope :

To Evolve and Impart Comprehensive Higher Education to the Students of Under Graduation & Post-Graduation, in Arts, Commerce & Science, Multimedia & Mass Communication and Management Studies.

An audit was performed and proof has been furnished that the management system fulfils the requirements of international standard detailed below ...

Standard	: ISO 50001:2018
Certificate No.	: 22.GGCS.IN.500150
Certification Date	: 01st March 2023
Cert. Expiry Date	: 28th February 2026

Geotek Global
Certification Pvt. Ltd.

Reg. No. IN.EnMS10.0523

imab
International Management
Accreditation Board

Chief Executive Officer
Geotek Global Certification Pvt. Ltd.
102, Raj Legacy, Near Bramhand Phase 5, Off. GB Road,
Thane (West), Pin 400607, Maharashtra, India

Geotek Global Certification Pvt. Ltd. is accredited by International Management Accreditation Board (Singapore) 51, Goldhill Plaza, #07-10/11, Singapore 308900

The continual validity of the certificate is conditional to compliance with the terms and the conditions of Geotek Global Certification Pvt. Ltd. - Certification Scheme Regulation. Validity of the certificate may be verified on following websites : *www.geotek.co.in* and accreditation body's website : *www.imacb.com*

ISO 14001:2015 Certificate Of Registration

Geotek Global Certification Pvt. Ltd.

hereby certify that the organization

Namita Education & Welfare Society's
Siddharth College of BMM, BMS and BCom

Address : N. S. Knowledge Centre, Badalapur - Mhasa Road, Boradpada, P. O. Chargaon 421503, Taluka Ambernath, District Thane, Maharashtra, India

has implemented and maintains an **Environmental Management System** for

Scope :

To Evolve and Impart Comprehensive Higher Education to the Students of Under Graduation & Post-Graduation, in Arts, Commerce & Science, Multimedia & Mass Communication and Management Studies.

An audit was performed and proof has been furnished that the management system fulfils the requirements of international standard detailed below ...

Standard	: ISO 14001:2015
Certificate No.	: 22.GGCS.IN.140216
Certification Date	: 01st March 2023
Cert. Expiry Date	: 28th February 2026

Geotek Global
Certification Pvt. Ltd.

Reg. No. IN.EMS20.0512

imab
International Management
Accreditation Board

Chief Executive Officer
Geotek Global Certification Pvt. Ltd.
102, Raj Legacy, Near Bramhand Phase 5, Off. GB Road,
Thane (West), Pin 400607, Maharashtra, India

Geotek Global Certification Pvt. Ltd. is accredited by International Management Accreditation Board (Singapore) 51, Goldhill Plaza, #07-10/11, Singapore 308900

Namita Education & Welfare Society's

SIDDHARTH COLLEGE

(B.M.M., B.M.S & B.Com)

(A Minority Institute, Affiliated to University of Mumbai)

At:Boradpada, Post:Chargaon, On Badlapur-Mhasa Road, Tal:Ambernath, Dist.:Thane – 421 503.
Contact Nos.: 0251-2670232, 8550961581, 9930501961   Website: www.siddharthcollegebadlapur.edu.in
email id : principal@siddharthcollegebadlapur.edu.in, namitaeducation@gmail.com

3. Clean and Green Campus Initiatives:

The College is gifted with natural greenery. In addition to this, the IQAC in coordination with National Service Scheme Unit of the college undertook few programmes. Following are the details of those programmes.

a) On 24th June 2018, during rainy season trees and plants were planted in the campus at the hands of Mr.Amrut Dagade, the Trustee of the College.

b) On 15th August, 2022, 17 trees were planted in the campus

c) 13 trees were planted in the campus by the NSS Unit of Sadhubella Girls' College On 26th December, 2022 during their NSS camp.

d) Under Swachh Bharat Abhiyan, the ground, classrooms, laboratories, toilets and library were cleaned from time to time.

e) Awareness of Green Campus were made to the students from time to time.

f) Dustbins are installed in the campus.

g) Vermicompost pit is made to collect all the waste materials, vegetable wastes and other canteen wastes.

h) Installed Nest and water feeding pans on trees of the campus for sparrows.

PRINCIPAL
Siddharth College
At. Boradpada, Po. Chargaon,
Tal. Ambernath, Dist. Thane (M.S)
Pin - 421 503

4. Beyond Campus Green Activity:

Tree Plantation and Swachh Bharat Abhiyan initiatives were also undertaken outside the college campus. The IQAC and NSS collectively took responsibility in promoting these activities.

Our volunteers visited the nearby villages viz., Boradpada, Kurhadpada, Numberwadi, Varyachi wadi and Kuderan in groups and made aware of the cleanliness. Our volunteers enjoyed in doing such work in their own villages under the banner of NSS.

   a) Planted trees in villages
   b) Cleanliness drive conducted
   c) Volunteers were deputed to water the planted trees on a regular basis.
   d) Celebrated World Environment Day on 5th June every year.
   e) Volunteers visit the villages, gather the leaves and other wastes and burn them regularly.

Future Plans:

   ➤ Campaign is proposed to hold to say 'No Plastic'
   ➤ Street plays are proposed to make aware of cleanliness and greenery.
   ➤ Intra-class competitions are proposed to conduct on Green Campus.

PRINCIPAL
Siddharth College

Tree Plantation :

Tree Plantation in college campus with management Mr. Dagade Amrut

Tree Plantation in College campus with Dr. Ankush Aundhakar Sir

Tree Plantation in College Campus with NSS Programme Office and Volunteers Deshpande Night College Mulund.

Tree Plantation in college campus with NSS Programme and Volunteers Sadhubella college Ulhasnagar.

Swatch Bharat Abhiyan :

Cleanliness Drive in College Campus Boradpada

Swatch Bharat Abhiyan in College Campus.

Swatch Bharat Abhiyan in M. J. Phule Campus Boradpada.

Nesting for Nature

Swatcha Bharat Abhiyan in College Campus

Sprinkle Irrigation Method:

Photos of Threen Bin System

Beyond The Campus Environment Initiatives:

Tree Plantation in Forest Area With Forest Officer Pradip Thakur Corporator Dnyaneshwar Mhatre

Tree Plantation in Hill and Mountain Area Badlapur.

Chargaon, Maharashtra, India
5958+R2F, Chargaon, Maharashtra 421503, India
Lat 19.159479°
Long 73.364692°
29/12/22 10:04 AM

Tree Plantation in M.J. Phule Campus

Swatch Bharat Abhiyan:

Cleanliness Drive in College Campus Boradpada

Swatch Bharat Abhiyan in M. J. Phule Campus Boradpada.

Cleanliness Drive College Campus to Boradpada and Kurhadpada Villege

Swatcha Bharat Abhiyan in Numberwadi Villege

Swatch Bharat Abhiyan in Kurhadpada Villege.

Swatch Bharat Abhiyan in Varyachi Wadi Villege