

ENVIRONMENT AUDIT

STUDY PERIOD (TWO YEARS) 2021 – 2022 & 2022 - 2023

Sustainability study
AUDIT REPORT

Studied for
Ashoka Education Foundation's
**Ashoka Center for
Business and Computer Studies**

Nandanvan Estate, Near Chandi Village,
Anandwalli, Gangapur Road, Nashik-422003, Maharashtra, India

Studied in the capacity of
Accredited and Certified GBP



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Disclaimer

The Audit Team has prepared this report for the **Ashoka Education Foundation's Ashoka Center for Business and Computer Studies** located at Nandanvan Estate, Near Chandli Village, Anandwalli, Gangapur Road, Nashik-422003, Maharashtra, India based on input data submitted by the Institute analysed by the team to the best of their abilities.

The details have been consolidated and thoroughly studied as per the various guidelines for Green Buildings available in National and International Standards; the report has been generated based on comparative analysis of the existing facilities and the prerequisites formulated by various standards. The inputs derived are a result of the inspection and research. These will further enhance and develop a Healthy and Sustainable Institution.

These can be implemented phase wise or as a whole depending on the decision taken by the internal team. The warranty or undertaking, expressed or implied is made and no responsibility is accepted by Audit Team in this report or for any direct or consequential loss arising from any use of the information, statements or forecasts in the report.

The audit is a thorough study based on the inspection and investigation of data collected over a period of time and should not be used for any legal action. This is the property of Greenvio Solutions and should not be copied or regenerated in any form.

The Report is prepared by the Team of Greenvio Solutions under their brand and department – Sustainable Academe as Consultancy firm with the Project Head - Ar. Nahida Shaikh who is as an Accredited and Certified Green Building Professional-Architect. Green Building consultancy is her forte and she is one of the most sought after names when it comes to providing excellent quality services within the stipulated time frame.

The Study is conducted in capacity of Accredited & Certified Green Building Professional with extensive experience.


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Acknowledgement

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Our special thanks are extended to everyone from the Management.

Our heartfelt thanks are extended to the Chairperson of the entire process **Dr. P. A. Ghosh** (Principal) for the valuable inputs.

We are also thankful to Institute's Task force who have played a major role in data collection.

- ➔ Teaching staff members – **Mrs. Komal Suyog Kadam**
- ➔ Non-teaching staff members – **Mr. Atul Gangurde**
- ➔ Admin staff members – **Mr. Kiran Bhamre**

Sustainable Academe

Brand of Greenvio Solutions, Palghar District, Maharashtra- 401208

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1. Introduction

1.1 About the Institution

Established in June 2009 by Ashoka Education Foundation with various courses of Higher Education. Nation's sustainable and inclusive economic growth depends upon its capacity to generate and advance the information technology knowledge.

The higher education system in the country has an important role to play in this area. Ashoka Center for Business and Computer Studies has come forward to share this responsibility by providing qualified Professionals to the existing industries.

ACBCS offers high-quality programs in different areas Computer Science, Computer Applications and Business Administration.

1.2 Statements of the Institution

1.2.1 Vision

The Institute proposes "To embed need based knowledge through holistic approach to create responsible future generation with deep rooted ethos of Indian culture and tradition."

1.2.2 Mission

The Institute adheres and focuses "To make the students thinker for self-exploration with technical and skill specific knowledge to create young professionals."

1.3 Assessment of the Institute

1.3.1 Affiliations

The College has all its courses approved and affiliated to the **Savitribai Phule Pune University**, formerly the University of Poona, is a collegiate public state university located in the city of Pune, India.

1.3.2 Recognitions

The College has been recognized under section [2 \(f\) of the UGC Act, 1956](#) by University Grants Commission, New Delhi.

1.3.3 Certification

The institute has received the following Certifications

- AISHE – The code is C-42104
- ISO 9001:2015 Certification

DETAILED REPORT

2. Overview

2.1 Summarised Populace analysis for 2022-2023

2.1.1 Students data

The data (shared by the Institute) shows there were **860 students**.

2.1.2 Staff data

S. No.	Type	Male	Female	Total
1	Admin staff	07	02	09
2	Teaching staff	28	09	37
3	Non-Teaching staff	05	12	17
Total Staff Members		40	23	63

Table 1: Staff data of the Institution for 2022-2023

The staff data shows the Institute premises had **63 Staff Members**.

2.2 Summarised Populace analysis for 2021-2022

2.2.1 Students data

The data (shared by the Institute) shows there were **766 students**.

2.2.2 Staff data

S. No.	Type	Male	Female	Total
1	Admin staff	05	02	07
2	Teaching staff	28	07	35
3	Non-Teaching staff	03	12	15
Total Staff Members		36	21	57

Table 2: Staff data of the Institution for 2021-2022

The staff data shows the Institute premises had **57 Staff Members**.

3. Research

3.1 Site Area

The **site area is 1.44 acres with a built-up area of 27,876 sq. ft.**

3.2 About the Green Building Study Audit

It is a systematic study of the aspects which make the Institution sustainable and healthy premises for its inhabitants.

3.3 Analysis of the Green Building Study Audit

The procedure included detailed verification as follows:

- ➔ Investigation
- ➔ Technical
- ➔ Observations
- ➔ Inferences

3.4 Strategy adopted for Green Building Study Audit

The strategies included data collection from the admin department, actual inventory, investigation to check the operation and maintenance, analysis of the data collection, and preparation of the Report.

4. Investigation



Plate 1: Discussion with the team



Plate 2: Investigation of the fire & life safety practices and internal spaces of campus



Plate 3: Discussion with the internal team

5. Documentation

5.1 Open Spaces

Within the premises it is a beautiful sight to be comprised of filtered light through light wells at various locations and plantations in form of climbers along the passages and potted plants all over. On the outer front there are ground areas available as open spaces for recreational and sports purposes.

The study suggests that, boards identifying these spaces as 'BREAKOUT ZONE' and 'GREEN ZONE' can be displayed around the site.

5.2 Flora audit

A flora survey was carried out to identify the plantations cover and typology. The landscape area has a variety of plantations the details of the same documented by internal team.

S. No.	Plant name	Nos.	Planted by
1	Malabar Nut Tree	2	Staff
2	Asparagus Racemosus	1	Staff
3	Insulin Plant	1	Staff
4	Indian Winter Cherry(Ashwagandha)	1	Staff
5	Origanum Majorana	1	Staff
6	Purple Basil (Ocimum Tenuiflorum)	1	Staff
7	Ruta Graveolens	1	Staff
8	Cissus Quadrangularis Linn	1	Staff
9	Cinnamomum Tamala, Bay Leaf	1	Staff
10	All Spice Plant	1	Staff
11	Pandan	1	Staff
12	Curry Leaves	1	Staff
13	Indian Bay Leaf	1	Staff
14	Piper Betel	1	Staff
15	Green Cardamom,	1	College

16	<i>Elettaria Cardamomum</i>	1	College
17	<i>Black Pepper Piper Nigrum</i>	1	College
18	<i>Araceae</i>	1	College
19	<i>Verbena Officinalis</i>	1	Students
20	<i>Peace Lily, Pathiphyllum,</i>	1	Students
21	<i>Chrysanthemum</i>	1	Students
22	<i>Rose</i>	1	Students
23	<i>Jasmine</i>	1	Students
24	<i>Cape Jasmine Flower</i>	1	Students
25	<i>Downy Jasmine</i>	1	Students
26	<i>Ixora Coccinea</i>	1	Students
27	<i>Night Blooming Jasmine</i>	1	Students
28	<i>Peace Lily</i>	1	Students
29	<i>Hibiscus Rosa-Sinensis</i>	1	Students
30	<i>Hibiscus Rosa-Sinensis</i>	1	Staff
31	<i>Hibiscus Rosa-Sinensis</i>	1	Staff
32	<i>Spider Plant</i>	1	Staff
33	<i>Snake Plant</i>	3	Staff
34	<i>Rhapis Palm Plant</i>	1	Staff
35	<i>Arena Palm Plant</i>	1	Staff
36	<i>Money Plant</i>	6	Staff
37	<i>Alovera</i>	3	Staff
38	<i>Bogan Well</i>	2	Staff
39	<i>Sonchafa</i>	2	Staff
40	<i>Bambu</i>	14	College
41	<i>Golden</i>	14	College
42	<i>Bramh Kamal</i>	1	College
43	<i>Marigold</i>	2	College
44	<i>Climber Plants(Sankrant Vel)</i>	10	College
45	<i>Show Vel Plant</i>	6	College
46	<i>Rui</i>	4	Grown Naturally
47	<i>Gulturi</i>	4	Grown Naturally
48	<i>Ramfal</i>	2	Staff

49	<i>Gulmohor</i>	5	Grown Naturally
50	<i>Shevri</i>	2	Grown Naturally
51	<i>Vad</i>	1	Grown Naturally
52	<i>Umbar</i>	1	Grown Naturally
53	<i>Leman</i>	1	Grown Naturally
54	<i>Rose</i>	1	Staff
55	<i>Acalypha</i>	5	College
56	<i>Crotan</i>	6	College
57	<i>Areaka Palm</i>	5	Staff
58	<i>Steplyra</i>	7	College
59	<i>Fuan</i>	6	College

Table 3: Details of the Flora in the premises

At present there are more than 140 numbers of plantations in the premises.

The study suggests that there is scope to document the plantations further through coding, numbering and book.

Additionally, a display board about 'Oxygen zone' could be undertaken.



Plate 4: Recreational ground in the premises

5.3 Fauna audit

There are varieties of biodiversity available as fauna in the premises since the locality is a semi-urban area with home to all types of fauna species.

5.4 Noise Audit

On a macro level sister Institute surrounds the campus along with residential area; once the

approach road towards campus is taken there is a peaceful arena experienced most suitable for an educational building.

The study suggests that no suggestions proposed for this section.

However, outside the campus a signboard could be displayed that highlights 'Silent zone' and 'No honking zone' being an Educational Institute.

5.5 Carbon Footprint Audit

5.5.1 Heat Island Reduction

The campus is located in a semi-urban area; the following features help in keep the heat island effect under control:

- Light colored exterior façade
- Light colored (Off-white colored interiors changed to white)
- Well maintained ground cover
- Open spaces surrounding the site

5.5.2 Outdoor Light Pollution Study

The Institute compound lights are not upward looking thus, these do not cause light pollution.

5.6 Fire Safety

Fire and life safety are an important consideration of the National Building Code 2016. This aspect is touched upon as part of this study in the capacity of an Architect registered with the Council of Architecture. As part of the research, fire safety audit was considered from the 'Building systems' perspective. ***There are extinguishers, hose reel, fire tank as measures.***

The study suggests that the floor should have a 'FIRE ESCAPE ROUTE LAYOUT' that highlights the position of stakeholders and nearest passage as well as staircase.

Additionally, the 'Lift control panel' should either be concealed/ demarcated as a 'Danger zone'

Inclusion of PASS Board and RACE Board at specific locations.

6. Inferences

6.1 Section-wise suggestions

The following suggestions can be implemented ***in next 2.5 years*** from the date of the Report submission.

6.1.1 Site beautification

Bird house/ Feeders - At appropriate locations there can be provisions for drinking water and some grains for birds as they visit the site much frequently.

6.1.2 Heat island reduction

No changes proposed for this section.

6.1.3 Life safety

- **Mandate fire extinguisher in spaces** - One fire extinguisher should mandatorily be there in every space which has an air conditioner/ gas cylinder.
- **Awareness** - Fire layouts in immediate spaces outside the lift, on the staircase landing, signages mentioning 'Do not use lift in case of fire' additionally fire exit signages, boards should be put up at all possible locations.
- *The **fire and life safety signages (Including exit signages)** should be increased and displayed.*

6.1.4 Pollution Control

- **Promote the use of Eco-friendly vehicles** - There can be student and staff sensitization program on eco-friendly and battery-operated vehicles/ low emission vehicles for daily use.
- **Bicycles as a gift** - As an appreciation gesture maybe the student's toppers/ staff best performers can be awarded a bicycle occasionally.
- **Avoid using plastic in premise** - There should be a provision for a ban on the use of plastic bags or products on the Premise.
- **Paperless technologies for offices** - The Institute can go technology-friendly and go paperless in the functioning of premises to a certain extent maybe not fully.

7. Compilation

The study is based on the data collected, analyzed, rechecked, and confirmed through multiple modes. For the quality study, some standards/ notes have been referred to. These are listed and noted below. However, no direct references have been used anywhere. These are used as a base to analyze and study the data collected.

- Uniform Plumbing Code – India, 2008
- IGBC Green Existing Buildings – Operation & Maintenance (O&M) Rating system, Pilot version, Abridged Reference Guide, April 2013
- IGBC Green Landscape Rating system, March 2013
- BOMA Canada Waste Auditing Guide, Best Environmental Standards, BOMA BEST – Canada
- Used only for understanding Universal design - Universal accessibility Guidelines for Pedestrian, Non-motorized vehicle and Public Transport Infrastructure – Report guidelines by Samarthyam (National centre for Accessible Environments) – an initiative supported by Shakti Sustainable Energy Foundation.

