

Qn 7.1.4

Water conservation facilities available in the Institution:

- 1.Rain water harvesting
- 2.Borewell /Open well recharge
- 3.Construction of tanks and bunds
- 4.Waste water recycling
- 5.Maintenance of water bodies and distribution system in the campus

INDEX

Sr. No.	Document	Page No.
1	Photograph of the soaking pit constructed in college campus by labor donation	1
2	Certificate of soaking pit construction by NSS in seven villages	2
3	Photograph of bund/check dam construction in NSS adopted village	3



1



Ambernath, Maharashtra, India
N.S.N. Research Centre for Nanotechnology and Bionanotechnology, SICES College, Jambhul Phata, Ambernath (W), Dattanagar, Ambernath, Maharashtra 421505, India
Lat N 19° 11' 27.7553"
Long E 73° 13' 4.41005"
01/11/20 12:10 PM



2

SOAKING PIT



Ambernath, Maharashtra, India
N.S.N. Research Centre for Nanotechnology and Bionanotechnology, SICES College, Jambhul Phata, Ambernath (W), Dattanagar, Ambernath, Maharashtra 421505, India
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02/11/20 05:38 PM



3



Ambernath, Maharashtra, India
N.S.N. Research Centre for Nanotechnology and Bionanotechnology, SICES College, Jambhul Phata, Ambernath (W), Dattanagar, Ambernath, Maharashtra 421505, India
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06/11/20 05:49 PM



4



Ambernath, Maharashtra, India
N.S.N. Research Centre for Nanotechnology and Bionanotechnology, SICES College, Jambhul Phata, Ambernath (W), Dattanagar, Ambernath, Maharashtra 421505, India
Lat N 19° 11' 27.55036"
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08/11/20 09:57 AM



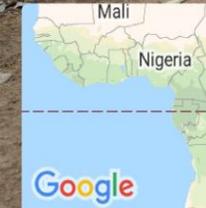
5



Ambernath, Maharashtra, India
N.S.N. Research Centre for Nanotechnology and Bionanotechnology, SICES College, Jambhul Phata, Ambernath (W), Dattanagar, Ambernath, Maharashtra 421505, India
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08/11/20 10:12 AM



6



Badlapur, Maharashtra, India
Link Rd, Katrap, Badlapur, Maharashtra 421503, India
Lat N 19° 10' 16.2192"
Long E 73° 13' 39.9468"
18/02/21 05:17 PM

गुप ग्रामपंचायत अस्नोली

समाविष्ट गावे : अस्नोली, पिंपळीली, येवे, पिंपळीलीवाडी, मामुची वाडी, मारगवाडी

सरपंच

ता. अंबरनाथ, जि. ठाणे

उपसरपंच

सौ. अश्विनी गणेश भावार्थे

श्री. नागो रामा बांगारे

Appreciation letter for constructing soaking pit in 7 villages in group gram panchayat ASNOLI

जावक क्र. 129019C

दिनांक : 2/9/2016

प्रति,

मा. एन. एन. एन. युनिट

2016/12

एन. व्हाय. सी. ई. एन

डिप्टी कमिश्नर महाराष्ट्र

विषय. एन. एन. एन. शिबिर आयोजित
केव्हावाचन

तरील अफनामवये गावगांव रुद्रु इच्छिते की, आपल्या
 भरापिदवालय लॉफ दि. 23/9/2016 ते 29/9/2016 रोजी
 राष्ट्रीय सेवा योजनेत आत दिवत निवासी शिबिर पु. येवे
 येथे आयोजित केले गेले. सदर काळात प्रत्येक भरापिदवालयीय
 विदपार्थी यांनी गावांतील विविध कामांने नियोजन केले त्यात
 गावात शौचखड्डे गारणे, शौचालय ताळी खड्डा काढणे, हि
 सामानाची काणे केले तसेच गावात पाहणी व मशा सुमारी
 पाहणी वानता, स्वच्छता विषयंक प्रचार केरी. मुमणी वाचवा
 पथ नाच्य वगैरी विविध कार्यक्र्म करून जनजागृती केले.

(Signature)
 2

Check dam construction at Yevegaon 23 Jan 2018



To

Principal,
SICES Degree College of Arts, Science & Commerce
Jambhul Phata, Ambarnath West
Thane 421 505.

Sub: **Completion of Energy, Green and Environment Audit at your premises.**

This is to state that we have completed the Energy, Green and Environment Audit at your premises and submitted the Energy Audit Report SCPL-PR-727-231220 dated December 23,2020 & Green and Environment Audit report SCPL-PR-727-231220 dated December 23,2020.

The organization is very keen to optimize energy cost & promote green culture wherever possible as a commitment towards better environment and conservation of energy. A lot of efforts have already been put up to bring down the carbon footprint & energy consumption.

The study has been completed generally as per the purchase order.

Thanking you.

Yours faithfully,
For **SENERGY CONSULTANTS PVT LTD**



Tushar Kamble
(Project coordinator)




I/c Principal
SICES Degree College of Arts, Science & Commerce
Ambarnath - 421505

Green and Environment Audit Report
S.I.C.E.S. Degree College of Arts, Science & Commerce

Report

On

GREEN & ENVIRONMENT AUDIT

For

S.I.C.E.S. Degree College of Arts, Science & Commerce
Ambarnath (W)

Prepared

By

Senergy Consultants Pvt Ltd
Mumbai

December - 2020



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Email: proj@senergy.co.in

Phone: 022-2555-1291

Page 1 of 1



[Signature]
I/c Principal
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Ambarnath - 421 505

Green and Environment Audit Report
S.I.C.E.S. Degree College of Arts, Science & Commerce

Contents

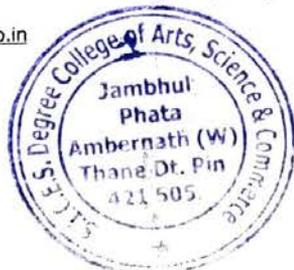
Sr. No	Description	Page
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II	Executive Summary	4
III	Electrical System	6
IV	Environmental System	9
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VII	Infrastructure & Safety	15
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[Signature]
I/c Principal
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Ambarnath - 421 505.

Green and Environment Audit Report
S.I.C.E.S. Degree College of Arts, Science & Commerce

I Introduction

Green & Environment Audit was undertaken at SICES Degree College of Arts, Science & Commerce, Jambhul Phata, Ambernath West, Thane 421 505, during the month of December 2020.

The organization is very keen to promote green culture wherever possible, as a commitment towards better environment and conservation of energy. A lot of efforts have already been put up to bring down the carbon footprint. To further optimize consumption and identify saving opportunities, M/s Senergy Consultants was assigned to carry out Green & Environment Audit of the premises.

This Audit Report presents the analysis of the data collected, observations made at the facility and is governed by the objectives, scope of work, methodology etc. discussed in the ensuing paragraphs.

Team:

The team members of the audit study.

- Mr. Ravindra Datar
- Mr. Nitesh Kharche

Acknowledgment:

We wish to express our gratitude towards Dr Harshal Bachhav for having given us the opportunity for conducting the study and the support provided during the study.

We are also thankful to Dr Shrikant Chavan for extending the necessary help and co-operation from their side.

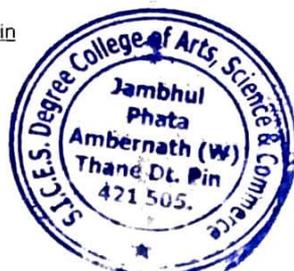


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Shrikant Chavan
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Ambernath - 421 505

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II Executive Summary

The premises were evaluated against the various criteria laid down by the National Assessment and Accreditation Council (NAAC).

The major observations are

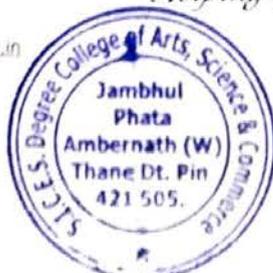
1. Air Quality & Ventilation
 - a. The air ventilation is adequate.
 - b. Several indoor and outdoor plants have been installed to improve air quality.
2. Water Quality & Conservation
 - a. The water supplied by the Municipal Corporation is used for drinking after purification; which is a common practice in and around Mumbai & Navi Mumbai.
 - b. A borewell water is used for other applications like toilets flushing, washing of utensils, etc.
 - c. Water purifiers are provided at convenient locations.
 - d. The various water conservation measures are initiated, and the water consumption is generally within the norms.
3. Waste Management
 - a. The generation of waste is minimized through use of electronic communication and effective waste management system.
 - b. The waste water is disposed of through common drainage system, which is usual practice in and around Mumbai.
 - c. The organic waste converted in to manure in a composting pit, which is used for inhouse plants.
4. Infrastructure usage
 - a. The on-campus movement is distributed with multiple entrances as well as staircases.
 - b. There is adequate parking space for vehicles/four wheelers. However, almost all the students and many of the faculty members avail public transport system which is very convenient due to proximity to railway station and bus services.
 - c. There are adequate fire extinguishers located at key areas. The college has initiated appropriate measures to meet the safety requirement.

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Green and Environment Audit Report
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- d. The draining system for washrooms is efficient and effective.
- e. No seepages were observed in the building premises.

5. Green IT culture

- a. Energy efficient computers and laptops have been procured.
- b. In most of the cases, the computers are switched off, when not in use.
- c. Electronic communication is encouraged to minimize usage of papers.
- d. Most of the papers are reused for doubled sided printing.

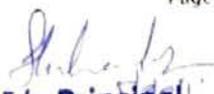
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III

Electrical System

Gadget List

Lamps:

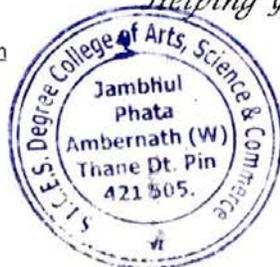
Location	LED Tube Light
	18 W
Ground Floor	
Gymkhana Room NO.2	8
Passage Area	9
Security Room	2
Basement	
Electrical Panel Room	2
Class No.1	2
Passage Area-1	5
Passage Area-2	4
First Floor	
Room No.13	4
Room No.16	4
Passage 1	6
Passage 2	3
Boys Toilet	1
Girls Toilet	1
Second Floor	
Room No.35	8
Room No.33B	2
Room No.36	4
Room No.37	4
Room No.38	4
Room No.39	7
Room No.40	4
Room No.41	4
Room No.43	8
Room No.44	8
Room No.45	13
Passage 1	3
Passage 2	6
Girls Toilet	1
Boys Toilet	1
Third Floor	
Room No.20	6
Room No.21	4
Room No.22	4

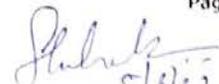
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I/c Principal
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 Ambarnath - 421 505. **10**

Green and Environment Audit Report

S. I. C. E. S. Degree College of Arts, Science & Commerce

Location	LED Tube Light
	18 W
Room No.23	4
Room No.24	4
Room No.25	4
Room No.26	4
Room No.27	4
Room No.28	4
Room No.29	4
Room No.30	14
Room No.31	8
Room No.32	8
Library	12
Passage 1	3
Passage 2	6
Girls Toilet	1
Boys Toilet	1

Ceiling Fans:

Location	Ceiling Fan
	48 W
Ground Floor	
Gymkhana Room NO.2	4
Degree Office	12
Passage Area	2
Security Room	1
Basement	
Class No.1	3
First Floor	
Room No.13	2
Room No.16	2
Second Floor	
Room No.35	6
Room No.33B	2
Room No.36	4
Room No.38	1
Room No.39	2
Room No.40	2
Room No.41	2
Room No.43	5
Room No.44	4
Room No.45	4
Third Floor	
Room No.20	3
Room No.21	2
Room No.22	2

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Prus
Prus

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S.I.C.E.S. Degree College of Arts, Science & Commerce

Location	Ceiling Fan
	48 W
Room No.23	2
Room No.24	2
Room No.25	3
Room No.26	2
Room No.27	2
Room No.28	2
Room No.29	2
Room No.30	6
Room No.31	4
Room No.32	4
Library	6

Air Conditioners:

Location	Type	Capacity	Quantity
Ground Floor Office	Split	1.5 Ton	2
CS Lab	Split	1.5 Ton	2
IT Lab	Split	1.5 Ton	2
Auditorium	Split	1.5 Ton	4

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Shubhangi
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Ambarnath - 421 505.

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S.I.C.E.S. Degree College of Arts, Science & Commerce

IV Environmental System

ventilation & Air Quality

- The air ventilator is adequate.
- Several indoor & outdoor plants have been installed to improve air quality.



- It has been a general practice to switch off the fans & lights in an unoccupied area.

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Shubha
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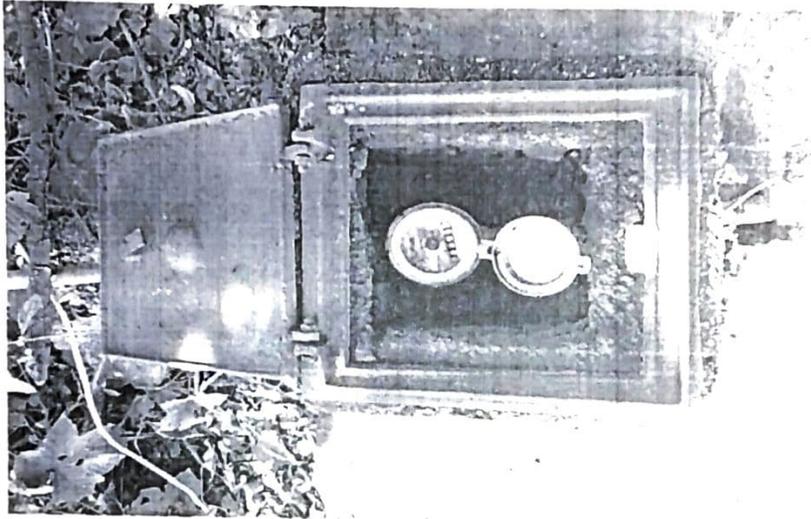
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V Water Management

Consumption Pattern:

The water supplied by the municipal corporation is used only for drinking; while borewell water is used for other applications like toilets, washing of utensils and other requirements.

The incoming water from the municipal corporation is metered.



The consumption pattern was analyzed by the water bills. The details are as under.

Municipal Water

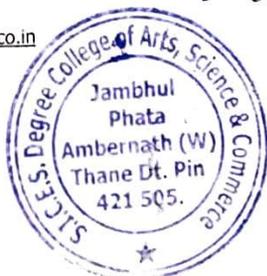
There is one municipal water connection for College Campus. The details are as under.

Period	Days	Consumption	Amount	Cost
		KL	Rs	Rs/KL
Consumer No. 13030				
14/11/2019 to 14/01/2020	61	102	2713	26.60
14/09/2019 to 14/11/2019	61	102	2713	26.60
14/07/2019 to 14/09/2019	62	103	2740	26.60
14/03/2019 to 14/05/2019	61	102	2713	26.60
14/01/2019 to 14/03/2019	59	98	2372	24.20

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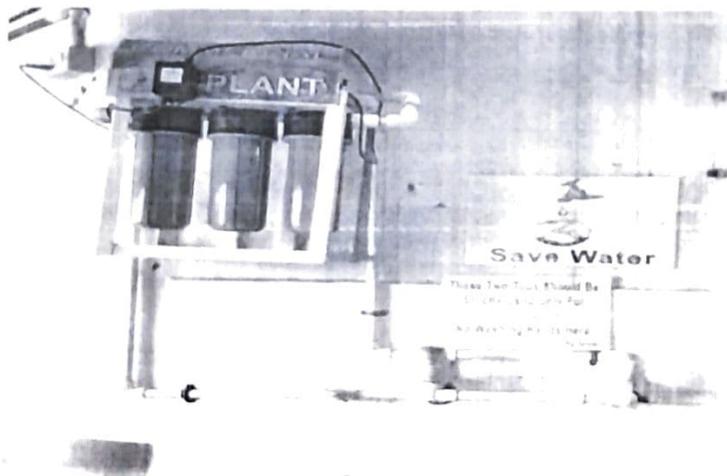
There are about 839 students and staff members. The specific water consumption was computed based on the number of persons and working days. The details are as under.

Period	Days	Consumption	Specific Consumption
		KL	L/Day/Person
Consumer No. 13030			
14/11/2019 to 14/01/2020	61	102	1.99
14/09/2019 to 14/11/2019	61	102	1.99
14/07/2019 to 14/09/2019	62	103	1.98
14/03/2019 to 14/05/2019	61	102	1.99
14/01/2019 to 14/03/2019	59	98	1.98
Overall	304	507	1.99

The consumption is generally within the norms.

Water Purifiers:

The water purifiers are installed on each floor and bottled water is not used in the campus.



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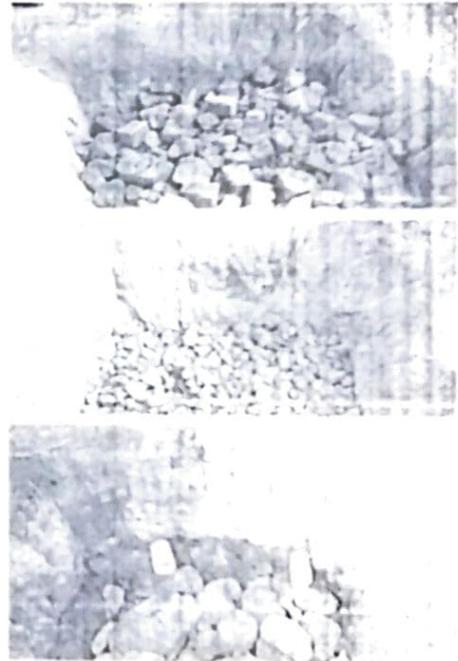
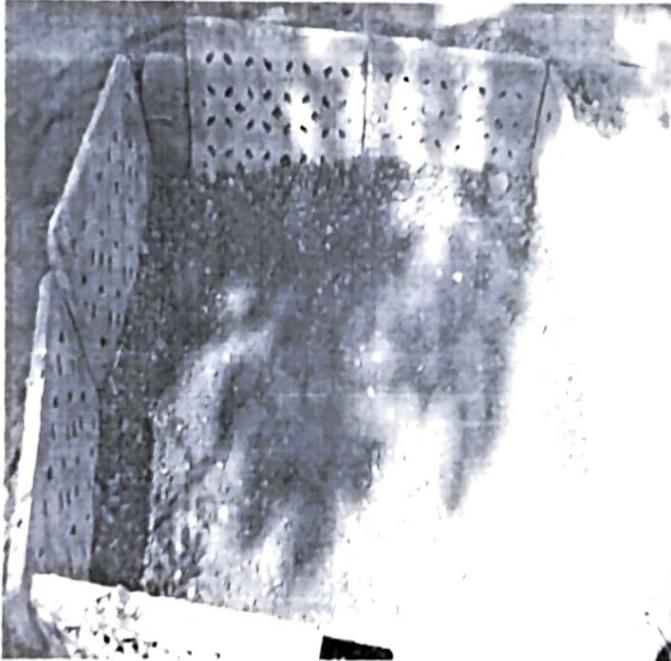
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Rain Water Harvesting:

The rain water from the terrace area of the college building is being drained in to municipal storm water system through requisite ducts and pipes.

However, considering proximity to the seashore, rain water harvesting may not be practical

There is a provision to recharge the ground water by Water Soaking Pit near garden area.



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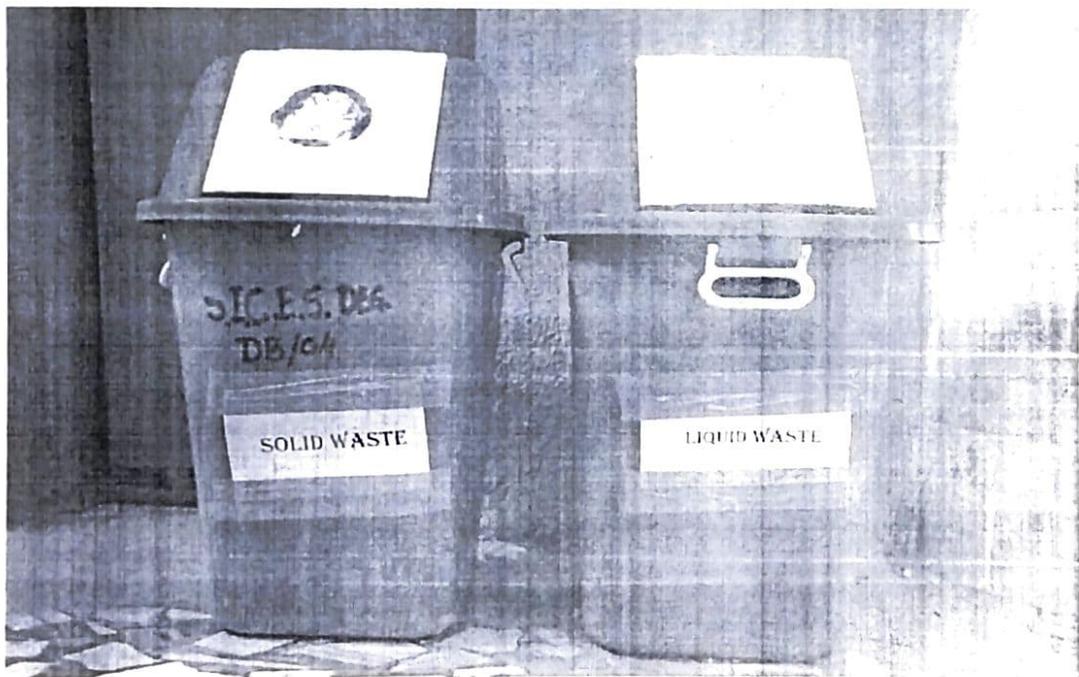
VI Waste Generation & Management

Sewage & Waste Water:

The sewage is fed in to the municipal drainage. This is a common practice and the municipal corporation which charges cess towards the sewage charges.

Solid Waste:

The organic as well as inorganic waste is segregated in the college premises and disposed of through Municipal system.



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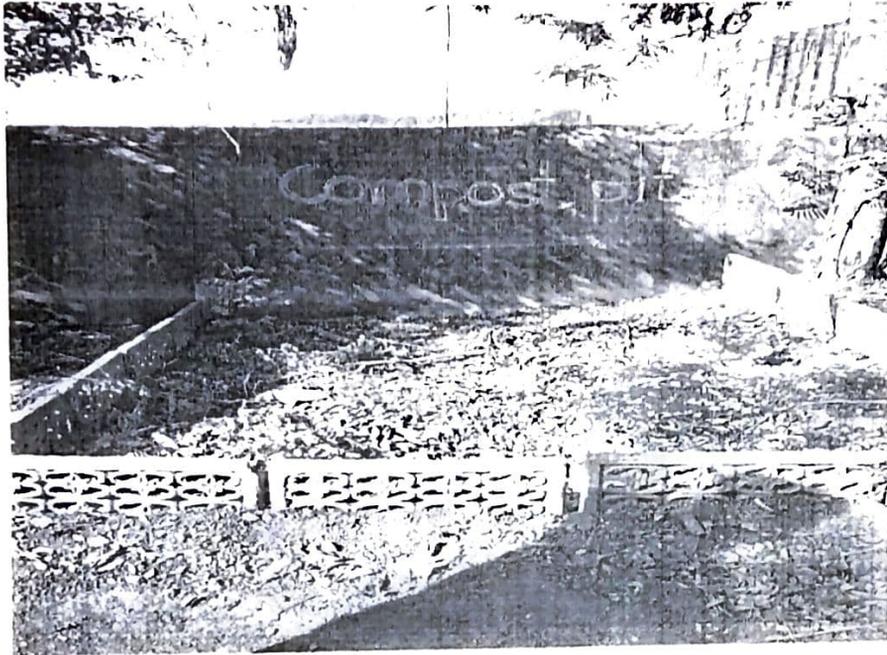
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Shubh
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The organic waste converted in to manure in a composting pit, which is used for inhouse plants.



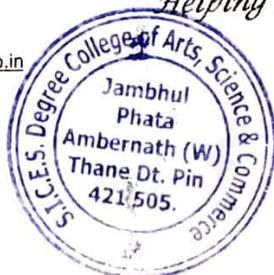
Electronic waste collected is handed over to scrap collector/ Environmental Consultant.

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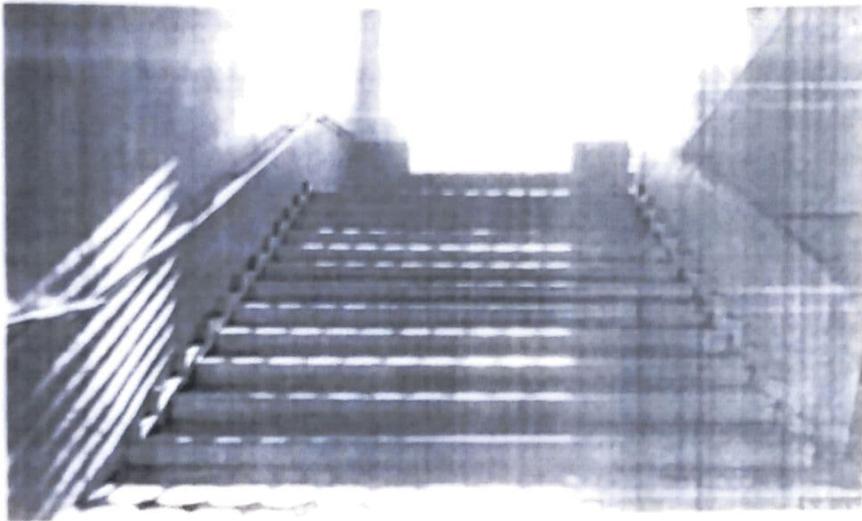
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I/c Principal
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Ambernath - 421 505.

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S.I.C.E.S. Degree College of Arts, Science & Commerce

VII Infrastructure & Safety

Movement on-campus (Distributed / non-distributed leading to crowds)

The premises are provided with multiple staircases with necessary entrances to ensure quick and effective movement normal as well as emergency conditions.



Parking space:

There is adequate parking space for vehicles/four wheelers. However, almost all the students and many of the faculty members avail public transport system which is very convenient due to proximity to railway station and bus services.

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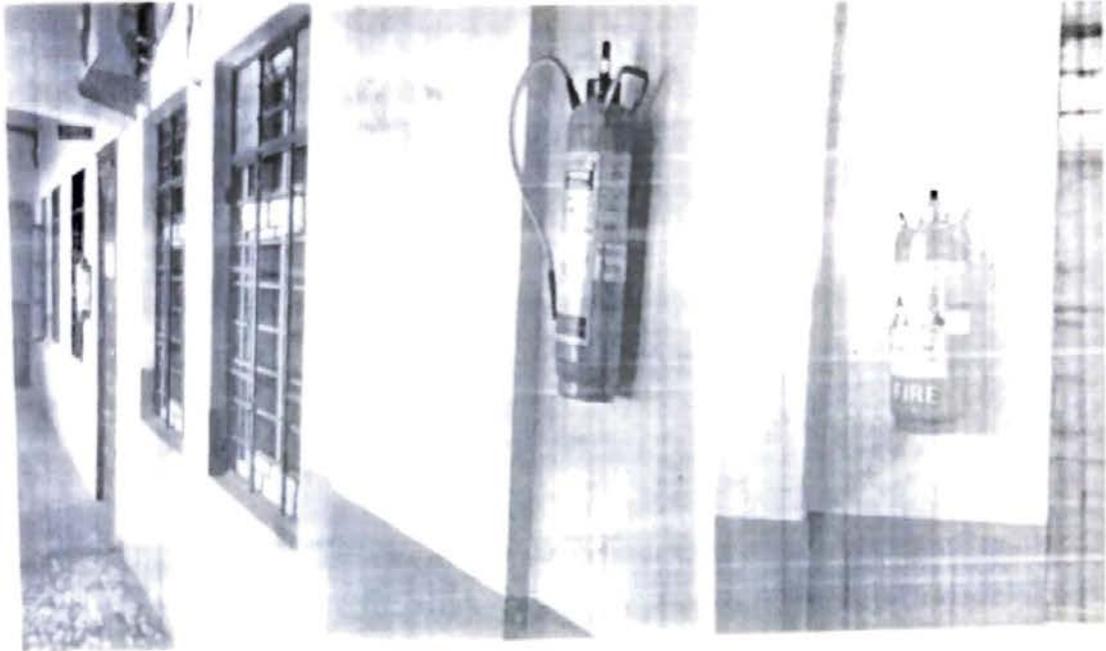


Shrihari
5/3/21
I/c Principal
S.I.C.E.S. Degree College of Arts, Science & Commerce
Ambarnath - 421 505

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Fire-fighting & fire escape system:

There are efficient fire extinguishers in the premises, which are checked & refilled as per the stipulated norms.



The premise is provided with multiple staircases with requisite entrances to ensure quick and effective response in emergency conditions.

Draining system:

The drains from the washrooms are connected to the municipal drainage, which is a common practice in the colleges in and around Mumbai.

It is neither feasible nor practical to segregate the drains, install a sewage treatment plant and recycle the treated water for toilet flushing and / or gardening.

Seepage in the building:

The premise was visually inspected for seepages.

No seepages were observed in any of the places.

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Principal
S.I.C.E.S. Degree College of Arts, Science & Commerce
Jamshul Phata, Ambernath (W), Thane Dist.

Green and Environment Audit Report
S.I.C.E.S. Degree College of Arts, Science & Commerce

VIII Green Culture

Computers/Laptops:

1. The LED / LCD monitors & Laptops has been procured, which are energy efficient.
2. These monitors are not only energy efficient but also generate minimal heat and cut down on electricity consumption.

Recommendations:

The following steps may be initiated to further enhance efficiency of the systems

1. An efficient power management system may be incorporated to
 - a. Switch off the display if not in use.
 - b. Put the computer in Sleep mode / switching off the machines, if not used for prolonged period.
2. Optimize brightness of the screen.
3. Discourage use of screen savers, which has similar power consumption.

Paper-less communication:

The major internal as well as external communication is through electronic medium.

Re-using one sided paper for printing:

It was observed that two side printing / printing on the back side of used paper in more than 80% of the cases.

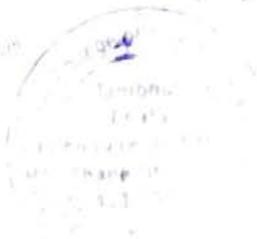


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