

CERTIFICATE OF ENVIRONMENTAL AUDIT

This is to certify that

Pune Vidyarthi Griha's College of Science & Technology

(Affiliated to University of Mumbai)

Located at CTS No. 218, Br. Nath Pai Nagar, Ghatkopar (E) Mumbai

Has successfully undergone for Environmental Audit to establish Eco-friendly practices for conservation of environment at all stages. The environmental awareness initiatives taken by the college are substantial to meet all the standards for maintaining a sustainable environment in the college premises.



(Term of validity) June, 1st 2017 - May, 31st 2019

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(Dr. Pramod Salaskar) Dharitree Enviro Research Centre

Date of Issue: 4th June 2017

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DHARITREE ENVIRO RESEARCH CENTRE

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Pune Vidyarthi Griha's College of Science & Technology

ENVIRONMENTAL AUDIT REPORT

(2017 - 2019)

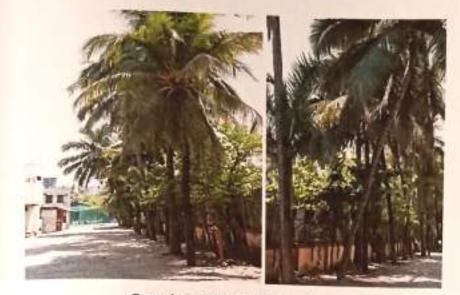


For Dharitree' Enviro Research Centre

Environmental Audit 2017-19

PHOTOGALLARY





Green belt in the college premises



Fire Extinguishers

Approach Road to College

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History:

an education only can provide, the stability, and one could gain name and fame in the society, an education is a wealth and becomes a treasure to the ones, who do not have money, and to the ones, who have a clever brain and ambitions in mind. "Anath Vidyarthi Griha" came into existence in the year 1909 on May 12th, having the same motto and with the aspiration to educate the poor and destitute needy children. There were many of the students, who used to work hard and some of them would get the charitable offerings from the society, but there was not a home or shelter for them and even a school where they would get an education. Eventually, this task was shouldered idealistically by "Pune Vidyarthi Griha".

Considering the increase in the volume of the students, in year 1912, the arrangement was made to stay for the students at Nagnath Par in the palatial house owned by Shri. Balukaka Kanitkar. It was a time that the school at Yeotmal was closed down by the Government, and so Shri Balukaka Kanitkar had become a part of the Institute. Shri. Balukaka Kanitkar had a wish that this institute should gain its name and fame not only giving education and shelter to the needy and destitute children, but also to hold a fame for offering "National Education", i. e. My Country, My Religion, My Language", which indulges into the fields such as Physical, Intellectual and Professional Education. In the year 1916-17, Shri. Balukaka Kanitkar had onated his palatial house of Kasaba Peth to the Institute, and Shri Dadasaheb Ketkar had opened the second branch in a row.

The Pune Vidyarthi Griha's College of Science & Technology was established in the year 2008. It is Affiliated to University of Mumbal and Recognized by Govt. of Maharashtra in 2008. Initially the permission was granted only for B. Sc. Information Technology & B.Sc. Computer Science Course. Observing the excellence of the college, the University granted the permission to the college to start B.com, BMS & BBI course in the year 2017 – 18.

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prefer vidyarthi Griha's College of Science & Technology aims at producing awareness about the environment consciousness. The institute takes initiatives to organize different events of green practices to percolate the knowledge amongst students, teachers, and nonteaching staff. This green message being transferred along with its practical dimensions among the families, societies and thereby to the stakeholders, forms a chain and network to spread the message at large. College is also aimed at giving solution to the different burning topics related to the environment, its awareness as well as its protection. As the government is taking initiative to sensitize mass with environment protection, newer concepts are being introduced to make college eco-friendly. To create and conserve the environment within the campus and to solve the environmental problems such as promotion of the energy savings, energy conservation, water reduction, water harvesting, solid waste management, improvement in the air quality of the campus, control on noise pollution, and minimizing the use of Plastic, etc. is one of the prime objective of the college.

Environment audit report is one such initiative that has been introduced to make the educational institute environmentally sustainable and active in spreading the education about the same. It is a tool to assess general practices implemented by the organization in terms of the impact on environment. The report also aims to spread the awareness on the adverse practices that are responsible for the degradation of the environment and how strongly the institute is involved in curtailing those practises. It helps in recognizing the need of a college to work around the year for environment sustainability. Thus, Environment audit forms the base line survey to decide for the Green policy.

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Acknowledgement

We take this opportunity to express our gratitude towards the president of the Institute, Hon. president, Shri. Sunil Redekar and Hon. Secretary of College Development Committee, Dr. Rajendar Kambale, & Hon. Director Shri. Rajendra Borade and all Hon. Members of the CDC committee of the college for their valuable guidance, continuous encouragement, generous gift of time with constructive critism & suggestion during the composition of work of entire," Environmental Audit Report- 2017-19".

We also express our deep sense of gratitude to our Hon. Principal, Dr B.G Kulkarni, who inspired and encouraged us throughout the work. We gratefully acknowledge the help provided by him on several occasions.

It is right time to express our deep sense of gratitude to our college Prof. Seema Gargote, prof. Trupti Rongare and Prof. Priya Jadhav for their continuous help, inspiring resoluteness and sensible suggestion without any reservation whenever we approached throughout investigation.

We are thankful to Dr. Ajay Kumar Pathak for his valuable guidance.

We are equally thankful to our colleagues' teachers and students of B.Sc CS/B.Sc. IT/ B.Com/ BMS which helps during data collections and identification of plants.

Coordinator, **Environmental Audit Report**

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principal Message lexpress my hearty wishes for success of this publication of 'Environmental Audit 2017-2019' Efforts made by our institution and senior college for the protection of environment and biodiversity conservation is really unique, which may become pilot project gives message about to avoid the for coming natural disaster like global warming, land sliding etc. We try to maintain environment eco-friendly through activities like landscaping and plantation, rain water harvesting, solid waste Management, sewage treatment plant, energy conservation, e-waste management, and paperless technology to minimize the use of paper basically prepare from the plants.

The ultimate aim of our institution to develop youth as fertile probe who understand for their social responsibilities.

l express my hearty wishes for success of this movement of Environmental Audit Report for the new beginning of the conservation from the doorstep of the people.

Our Environmental audit reflects assessment and achievement of vision and mission of the college.

Dr. B.G. Kulkarni Principal

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ENVIRONMENTAL AUDIT REPORT COMMITTEE

(2017-2019)

Sr. No.	Name	Designation	Committee Role	Signature
1	Dr. B.G. Kulkarni	Principal	Coordinator	86_
2	Dr. Pramod Salaskar	Dharitree Enviro Research Centre	External Auditor	mabous
3	Prof. Seema Gargote	Asst. Professor	Internal Auditor	Leema.CF
4	Prof. Trupti Rongare	Asst. Professor	Internal Auditor	Tronge
5	Prof. Priya Jadhav	Asst. Professor	Internal Auditor	Enga

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NEED FOR ENVIRONMENT AUDITING:

Environment auditing is the process of identification and determination of the institution's practices in creating awareness and practising the environment friendly measures. Over the period of time over exploitation of resources like energy, water, etc. have resulted in the environmental degradation. It is necessary to check whether our way of living and handling resources is not going to cause detrimental effects in our surroundings. Environment audit Report aims at summarising the college's contribution and its activeness in creating awareness and consciousness in practically applying the environmental friendly measures towards an institute.

GOALS OF ENVIRONMENT AUDIT:

Identification and documentation of environment practices followed by university.

- 2. Identify strength and weakness in environment practices.
- 3. Analyze and suggest solution for problems identified.
- 4. Assess facility of different types of waste management.
- 5. Increase environmental awareness throughout campus
- 6. Identify and assess environmental risk.
- 7. Motivates staff for optimized sustainable use of available resources.

8. The long-term goal of the environmental audit program is to collect baseline data of environmental parameters and resolve environmental issue before they become problem.

OBJECTIVES OF ENVIRONMENT AUDIT:

- To examine the current practices, which can impact on environment such as of resource utilization, waste management etc.
- 2. 2. To identify and analyze significant environmental issues.
- 3. Setup goal, vision, and mission for environment practices in campus.
- Establish and implement Environment Management in various departments.

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5. Continuous assessment for betterment in performance in environment

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- BENEFITS OF ENVIRONMENT AUDIT TO EDUCATIONAL INSTITUTIONS:
 - It would help to protect the environment in and around the campus. 2. 2. Recognize the cost saving methods through waste minimization and energy

 - 3. Empower the organization to frame a better environmental performance. 4. It portrays good image of institution through its clean and green campus. Finally, it will help to build positive impression for through green initiatives the upcoming NAAC visit

OBJECTIVE AND SCOPE:

- 1. Environmental education through systematic environmental management approach Improving environmental standards
- Benchmarking for environmental protection initiatives 3.
- Sustainable use of natural resource in the campus.
- 5. Financial savings through a reduction in resource use
- 6. Curriculum enrichment through practical experience
- 7. Development of ownership, personal and social responsibility for the College campus and its environment
- 8. Enhancement of College profile
- 9. Developing an environmental ethic and value systems in young people

EXECUTIVE SUMMARY:

An environmental audit is a snapshot in time, in which one assesses campus performance in complying with applicable environmental laws and regulations. Though a helpful benchmark, the audit almost immediately becomes outdated unless there is some mechanism in place to continue the effort of monitoring environmental compliance. This audit report contains observations and recommendations for improvement of environmental consciousness.

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Table: Species wise count of trees

sr. No.	Botanical Name	Local Name	Family	Native/ introd. / Nt.	Vegeta tion type	No. of individuals plants			
1	Aegie marmelos	Bel	Rutaceae	Native	Deciduous	1			
2	Annona squamosa	squamosa Sitaphal Annonaceae Nt Artocarpus heterophyllus Phanus Moraceae Native Azadirachta indica Neem Meliaceae Native	tocorpus Phanus Moraceae Native	Sitaphal Annonaceae Nt	Staphar Annonaceae	hal Annonaceae	Sitaphal Annonaceae Nt	Evergreen	3
3	heterophyllus			Evergreen	1				
4	indica		Native	Evergreen	2				
5	Bombax ceiba	Katesavar	Malvaceae	Native	Deciduous	1			
6	Carica papaya	Pappayi	Caricaceae	Native	Evergreen	1			
7	Cocos nucifera	Naral	Arecaceae	Native	Evergreen				
8	Delonix regia	Gulmohar	Caesalpiniaceae	Nt	the second se	47			
9	Dypsis Jutescens	Dyps/s Areca palm Nit		Evergreen Evergreen	1				
10	Eucolyptus grandis	Neelgiri	Myrtaceae	Myrtaceae Native Evergreen	Evergreen	3			
11	Ficus benghalensis	Vad	Moraceae		Evergreen	1			
12	Ficus racemosa	Umber	Moraceae		Evergreen	3			
13	Hyophorbe lagenicaulis	Bottle Palm	Palm Arecaceae Nat Anacardiaceae Nat	Nt	Evergreen	7			
14	Mangifera indica	a Amba Anacardiao nga Shevga Moringace aya Kaddi patta Rutaceae amarckia mba Kadamb Rubiacea		Native	Evergreen	4			
15	Moringa oleifera			Native	Deciduous	1			
16 17	Murraya koenigii			Native	Deciduous	1			
	Peltophorum 18 pterocarpum So		Rubiacea	Native	Evergreen	1			
18		Sonmohar	Caesalpiniaceae	Introd	Evergreen	3			
19	Plumeria obtusa	Chapha	Apocynaceae	Introd	Evergreen	1			
20	Polyalthia longifolia	Ashoka	Annonaceae	Native	Evergreen	14			
21	Pongamia pinnata	Karanj	Fabaceae	Native	Deciduous	1			
22	Tectona grandis	Sagwan	Verbenaceae	Native	Deciduous	18			

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P						151
Terminalia	Deshibadam	Combretaceae	Native	Deciduous	6	1
23 catapa				Total	122	



Table 2: Avifaunal diversity observed immediate surroundings of the College Campus Dwelling Feeding Habit Common Scientific **IUCN Status** IWPA Status Family Name Name Assessment R Omnivorous House Crow Least Schedule - V Corvus Corvidae splendens Concern ver 3.1 R Omnivorous Schedule - IV Pycnonotus **Red Vented** Least Pycnonotidae Bulbul Concern ver cafer 3.1 R Omnivorous Schedule - IV Red Least Pycnonotus Whiskered Concern ver jocosus Bulbul 3.1 R Insectivorous Small Bee Least Merops Meropidae Concern ver Eater orientalis 3.1 R Piscivorous & Schedule -IV Least White-Halcyon Hakyonidae Insectivorous Concern ver throated smyrnensis 3.1 Kingfisher R Granivorous Blue Rock Least Columba livia Columbidae Concern ver Pigeon 3.1 Omnivorous R Schedule - IV Least Black Drongo Dicrurus Dicruridae Concern ver macrocercus 3.1 R Omnivorous Schedule - IV Least Common Acridotheres Sturnidae Concern ver Myna tristis 3.1 R Insectivorous & Least Oriental Herbivorous Copsychus Muscicapidae Concern ver Magplesaularis 3.1 Robin R Carnivorous Schedule -IV Least Greater Centropus Cuculidae Concern ver Coucal sinensis 3.1

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1	S COMPANY	1
1	Gasticar	
-	MUTTER	1
1		1

AMBIENT AIR STA	ATION				
of sampling	14/04/2017 Annyas completed on			eted On	19/04/2017
Location of H.V.S.	Aprrox. 50	meter from	n Main Gate		
Lateral Distance	60 Meter f	rom Main G	iate		
ateration Distance	1.5 Meters	From Grou	nd Level		
	2	29	Humidity (%)	39
Ambient remperature (°C) Wind Speed (km/hr)	(07	Wind Dire	ction (deg ⁶)	W 264
instruments Used	R.D.S.(APN (GTI-177)	4- 460), F.P.	S.(APM - 550), G.P.S.(APM - 411)	& Benzene Sampler
		POLLUTIO	NAL PARAME	TERS	
Parameters	Result	Units	NAAQS Limits		ethod
PM ₃₀	67	hā/w ₃	100.00	IS 5182 (Part 23): 2006 (RA 2022)	
PM25	36	µg/m³	60.00	EPA Quality assurance guidance document 2.12, based on CPC8-201	
501	23	µg/m ¹	80.00	IS 5182 (Part 2): 2001 (RA 2022)	
NO2	19	µg/m³	80.00	IS 5182 (Part 6): 20	006 (RA 2022)
Ammonia (NH3)	<20	µg/m³	400.00	CPCB Guidelines For Measurement Of Ambient Air Pollutants Volume-I ,2011	
co	0.92	mg/m³	04.00	IS 5182 (Part 10) :	1999 (RA 2019)
Lead as Pb	<0.1	µg/m³	01.00	EPA compendium method ID 3.5:2012	
Benzene (CcHs)	< 4	µg/m³	5.00	IS 5182 (Part 11) :2006 (RA 2022)	
Arsenic(As)	< 5	ng/m ³	6.00	EPA compendium method IO 3.5:2012	
Nickel(Ni)	< 5	ng/m ³	20.00	EPA compendium method IO 3.5:2012	
Ozone (O3)	17	µg/m³	180.00	IS 5182 (Part 9): 19	74 RA 2019
Benzo(a)Pyrene	< 0.1	ng/m ³	1.00	IS 5182 (Part 12): 2	004 (RA 2019)
		-		the second se	

NOTE: 1) The above results relate only to the item tested & the condition prevailing at the time of sampling

2) PM₁₀-Particulate Matter of size < 10 μm, PM₂₅ - Particulate Matter of size < 2.5 μm
3) NAAQS-National Ambient Air Quality Standards

4) Lower Detection Limit (NH₃ <20 μ g/m³), (Pb <0.10 μ g/m³), (C₃H₆ <4 μ g/m³), (As <5 ng/m³), (Ni <5 ng/m³), (Benzo(a)Pyrene < 0.1 ng/m³)

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Date Of Mo	nitoring : 26.04.20	17
Sampling Lo	ecation : Approx. 5	0 Meter from Main Gate
Sr. No.	Time	Noise Levels in dB(A) Leq
1	8.00 am	43.1
2	9.00 am	46.7
3	10.00 am	53.3
4	11.00 am	49.4
5	12.00 am	41.2
6	2.00 pm	39.2
7	4.00 pm	45.6
8	6.00 pm	58.4

Method:-IS:9989-1981 (RA 2001)

NOTE: 1) CPCB Limit During Day time < 55. (Day time shall mean from 6.00 am to 10.00 pm.) 2) CPCB Limit During Night time < 45. (Night time shall mean from 10.00 pm to 6.00 am.)

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ANAI	YSIS	TEST	REP	ORT
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Sample Collection Date	16/04/2017	Analysis Completed On	28/04/2017		
Sample Details	Canteen				
	Drinking Water				
sample Container	PVC Can	Sample Quantity	5000 ml		

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
_	DH	7.3	-	6.5 - 8.5	IS 3025 (Part-11): 2022
1	Colour	<5	CU	5.0	IS 3025 (Part-4/4): 2021
2	A ANY	Agreeable		Agreeable	IS3025 (Part-5):2018:RA 2022
3	Odour	113	mg/lit	500	IS 3025 (Part-16):2023
4	TDS	<1.0	NTU	1.00	IS 3025 (Part-10): 1984:RA 2022
5	Turbidity	<0.5	mg/lit	0.5	IS 3025 (Part 34/2.2 & 2.3): 1988:RA 2019
7	Chlorides as Cl	9.4	mg/lit	250.00	IS 3025 (Part 32/2): 1988: RA 2019
-	Fluorides as F	0.4	mg/lit	1.0	APHA (24th Edition) 4500 F - D -
8	Residual Chlorine	<0.2	mg/lit	0.2	IS 3025 (P-26/5):2021
9		10.2	mg/lit	45.00	APHA (24th Edition) 4500- NO3-B
10	Nitrate as NO ₃	43.8	mg/lit	200	IS 3025(Part23/8.1):1986: RA
1	Total Alkalinity as	52.6	mg/lit	200.00	IS 3025(Part21/5):2009: RA 2019
3	Total Hardness as Sulphate as SO4	2.7	mg/lit	200.00	APHA (24th Edition) 4500 504 - 1 - 2022
		<0.05	mg/lit	0.05	IS 3025 (Part27/sec1/4) :2021
4	Cyanide as CN	S 1.2397/6	mg/lit	75.00	IS 3025 (Part40/5):1991: RA 2019
15	Calcium as Ca	13.6	mg/lit	30.00	IS 3025 (Part 52-6):2003: RA 2019
16	Magnesium as Total Chromium	4.92 <0.01	mg/lit	0.05	IS 3025 (Part46/6):1994: RA 2019

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SOLID WASTE MANAGEMENT

Alm :-1) Scientific disposal of solid waste 2) Protection of human health and environment Objective:-1) To increase recycling level 2) To reduce organic waste in landfills 3) To control air, water, soll pollution 4) Production of green manure and vermicompost.

Activity / Observation :

solid waste is separated as dry and wet. Dry waste includes plastic, glass, paper, metals, wood and related product. Wet waste typically refers to organic waste usually generated as canteen waste, plant debris. Dry waste is separated and it is given for its reuse and recycling to the recycler agency to avoid the pollution. Wet waste is also known as organic waste. It is obtain from canteen , fallen leaves , litter, ort, trash etc. produce in this campus if it is not disposed properly it creates air pollution, to avoid this we have implemented solid organic waste management activity, we run it at two level one is decomposition of solid waste through the composting in pit, vermicompost form solid organic waste and second is training to the students, farmers about production of organic manure like vermicompost, production of mushroom from the solid organic agricultural waste which ultimately conversion of Best from Waste, further the best biofertilizer is used for plants of college campus which enhances greenery leads environment clean and fresh.

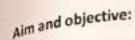
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ENVIRONMENT AWARENESS PROGRAM



- To plan, organize and implement programmes like landscape and plantation, water management & conservation, and rain water harvesting.
- To provide education that prepares students for leadership and social responsibility teaching them to think and communicate effectively and develop a global awareness.
- To introduce environmental education programmes for strengthen the existing ecological and environment related training infrastructure.
- To organize training programmes for vocationalisation of environmental careers.
- To strengthen Global Environmental Education Programmes for standardization of greening activities.
- To introduce environmental education programmes in strengthen the existing ecological and environment related training infrastructure.
- To make special plans for the studies vermiculture, plantation, nursery development, water & energy conservation and management, rain water harvesting and other related fields.
- To provide environmental education that prepares students for leadership and social responsibility by teaching them to think and communicate effectively and develop global environmental awareness and sensitivity.

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Ventilation and Indoor Air Quality (IAQ) :

- There is adequate size of windows in college class rooms as well as in corridor which allow sufficient light and ventilation.
- Corridors are wide with good ceiling height
- Classrooms also have high ceiling with wide doors. Windows are kept open to receive sunlight.
- · All classrooms are provided with ceiling fans for proper air circulation.

Water Efficiency & Wastewater Management:

- Two RO filtration plant has been installed on main building to provide clean drinking water in campus.
- No water leakage observed anywhere in Campus.
- The students have awareness for water conservation.

Energy Efficiency:

- All the CRT monitors of computers have been replaced with LED monitors.
- Computers are kept switched off when not required to operate.
- Save energy posters/stickers such as "Switch off all electrical equipment's when not required to use" at maximum locations to spread energy conservation awareness.
- All conventional incandescent tube lights are replaced with LED tube lights.

Ambiance and Acoustic Control:

- Tree plantation in and around the campus help in reducing ambient temperature and acoustic control.
- The college is located away from road side so there is no major noise pollution.

Waste Management:

Paper waste

 Being academic institution, waste paper is the main solid waste generated in the premises. The institution has taken steps to minimize usage of papers by implementing e-notice board.

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Pune Videnthi Grite's College of Science & Technology

- Both sides of the pages are utilized to avoid excess paper usages. Paper wastes are not directly disposed off in dustbin, it is given to local vendors for

e-waste

The college has taken initiative to segregate and collect e-wastes and stored at

Canteen and Solid Waste Management

- Wet and dry wastes are segregated in college canteens and directly handed over to ٠ the concern Municipal Corporation for disposal.
- Bio-degradable and non-biodegradable waste is generated labs, are also segregated . and disposed of through Municipal Corporation

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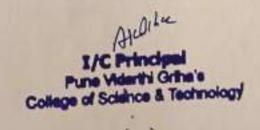


Pune Vidyarthi Griha's College of Science & Technology located at CTS No. 218, Br. Nath Pai Location: Nagar, Ghatkopar-E Ghatkopar (East) Mumbai-400077, Maharashtra, India.



Figure. Schematic representation of Pune Vidyarthi Griha's **College of Science & Technology Campus**

Country	India
State	Maharashtra
District	Mumbai
City	Mumbai
Area	Ghatkopar East
Elevation	20 meter
Population (1917)	6.2 Lakh
Area Code	+91-022
Official Languages	Marathi, English
College Campus area:	Approximately 9,586.6Sq. meter
Perimeter	Approximately 467.3 meter
Location:	19°04.197'N; 72°54.236'E





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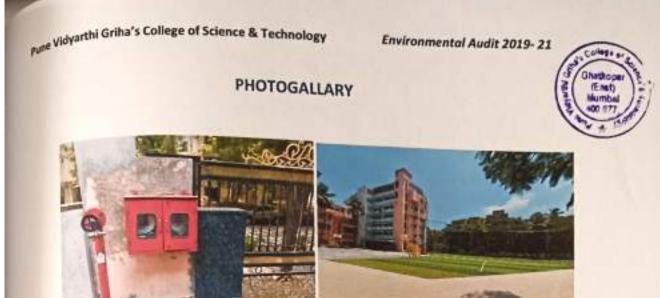
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(2019 - 2021)



For Dharitree' Enviro Research Centre

Proprietor



Fire Extinguishers

Sports facilities at premises



Green belt around the college premises

Audite

I/C Principal Pune Videnthi Griha's College of Science & Technology

Environmental Audit 2019-



Preface

Pune Vidyarthi Griha's College of Science & Technology aims at producing awareness about the environment consciousness. The institute takes initiatives to organize different events of sreen practices to percolate the knowledge amongst students, teachers, and nonteaching staff. This green message being transferred along with its practical dimensions among the families, societies and thereby to the stakeholders, forms a chain and network to spread the message at large. College is also aimed at giving solution to the different burning topics related to the environment, its awareness as well as its protection. As the government is taking initiative to sensitize mass with environment protection, newer concepts are being introduced to make college eco-friendly. To create and conserve the environment within the campus and to solve the environmental problems such as promotion of the energy savings, energy conservation, water reduction, water harvesting, solid waste management, improvement in the air quality of the campus, control on noise pollution, and minimizing the use of Plastic, etc. is one of the prime objective of the college.

Environment audit report is one such initiative that has been introduced to make the educational Institute environmentally sustainable and active in spreading the education about the same. It is a tool to assess general practices implemented by the organization in terms of the impact on environment. The report also aims to spread the awareness on the adverse practices that are responsible for the degradation of the environment and how strongly the institute is involved in curtailing those practises. It helps in recognizing the need of a college to work around the year for environment sustainability. Thus, Environment audit forms the base line survey to decide for the Green policy.

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Environmental Audit 2019-21



Acknowledgement....

We take this opportunity to express our gratitude towards the president of the Institute, Hon. president, Shri. Sunil Redekar and Hon. Secretary of College Development Committee, Dr. Rajendar Kambale, & Hon. Director Shri. Rajendra Borade and all Hon. Members of the CDC committee of the college for their valuable guidance, continuous encouragement, generous gift of time with constructive critism & suggestion during the composition of work of entire," Environmental Audit Report- 2019-21".

We also express our deep sense of gratitude to our Hon. Principal, Dr Ajay Kumar Pathak, who inspired and encouraged us throughout the work. We gratefully acknowledge the help provided by him on several occasions.

It is right time to express our deep sense of gratitude to our college Prof. Meena Patel, prof. Sadhana Mishra, and Prof. Gaurav Singh for their continuous help, inspiring resoluteness and sensible suggestion without any reservation whenever we approached throughout investigation.

We are thankful to Dr. B.G Kulkarni, President of Alumni Pune Vidyarthi Griha for his valuable guidance.

We are equally thankful to our colleague's teachers and students of B.Sc. CS/B.Sc. IT /B.Com/ 8MS which helps during data collection and identification of plants.

Coordinator,

Environmental Audit Report

I/C Princ ne Videnthi Gr as of Science & Technology

Environmental Audit 2019-21



Principal Message

lexpress my hearty wishes for success of this publication of 'Environmental Audit 2019-2021'. Efforts made by our institution and senior college for the protection of environment and biodiversity conservation is really unique, which may become pilot project gives message about to avoid the for coming natural disaster like global warming, land sliding etc. We try to maintain environment eco-friendly through activities like landscaping and plantation, rain water harvesting, solid waste Management, sewage treatment plant, energy conservation, E-waste management, and paperless technology to minimize the use of paper basically prepare from the plants.

The ultimate aim of our institution to develop youth as fertile probe who understand for their social responsibilities.

lexpress my hearty wishes for success of this movement of Environmental Audit Report for the new beginning of the conservation from the doorstep of the people.

Our Environmental audit reflects assessment and achievement of vision and mission of the college.

Dr. Ajay Kumar Pathak I/C Principal

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Environmental Audit 2019-21

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I/C Principal Pune Videnthi Griha's College of Science & Technology

ENVIRONMENTAL AUDIT REPORT COMMITTEE

(2019-2021)

Sr.No.	Name	Designation	Committee Role	Signature
1	Dr. Ajay Kumar Pathak	I/C Principal	Coordinator	Addre
2	Dr. Pramod Salaskar	Dharitree Enviro Research Centre	External Auditor	mabry
3	Prof. Meena Patel	Asst. Professor	and the second se	MPatt
4	Prof. Sadhana Mishra	Asst. Professor	Internal Auditor	SHisting
5	Prof. Gaurav Singh	Asst. Professor	Internal Auditor	CASING D

Aufila I/C Principal Pune Vidarthi Grina's College of Science & Technology

Environmental Audit 2019-21

Location:

pune Vidyarthi Griha's College of Science & Technology located at CTS No. 218, Br. Nath P Nagar, Ghatkopar-E Ghatkopar (East) Mumbai-400077, Maharashtra, India.



Country	India		
State	Maharashtra		
District	Mumbai		
City	Mumbai		
Area	Ghatkopar East		
Elevation	20 meter		
Population	Population (2020): 146056		
	Male Population: 76084		
Area Code	Female Population: 69972 +91-022		
Official Languages	Marathi, English		
College Campus area:	Approximately 9,586.6Sq. meter		
Perimeter	Approximately 467.3 meter		
Location:	19°04.197'N; 72°54.236'E		

AILAIL. **I/C Principal** Pune Vidarthi Griha's College of Science & Technology

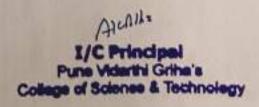
Environmental Audit 2019-21



An education only can provide, the stability, and one could gain name and fame in the society, an education is a wealth and becomes a treasure to the ones, who do not have money, and to the ones, who have a clever brain and ambitions in mind. "Anath Vidyarthi Griha" came into existence in the year 1909 on May 12th, having the same motto and with the aspiration to educate the poor and destitute needy children. There were many of the students, who used to work hard and some of them would get the charitable offerings from the society, but there was not a home or shelter for them and even a school where they would get an education. Eventually, this task was shouldered idealistically by "Pune Vidyarthi Griha".

Considering the increase in the volume of the students, in year 1912, the arrangement was made to stay for the students at Nagnath Par in the palatial house owned by Shri. Balukaka Kanitkar. It was a time that the school at Yeotmal was closed down by the Government, and so Shri Balukaka Kanitkar had become a part of the Institute. Shri. Balukaka Kanitkar had a wish that this institute should gain its name and fame not only giving education and shelter to the needy and destitute children, but also to hold a fame for offering "National Education", i. e. My Country, My Religion, My Language", which indulges into the fields such as Physical, Intellectual and Professional Education. In the year 1916-17, Shri. Balukaka Kanitkar had shifted one of its branches at Chinchwad. Shri Babasaheb Patwardhan had donated his palatial house of Kasaba Peth to the Institute, and Shri Dadasaheb Ketkar had opened the second branch in a row.

The Pune Vidyarthi Griha's College of Science & Technology was established in the year 2008. Itis Affiliated to University of Mumbai and Recognized by Govt. of Maharashtra in 2008. Initially the permission was granted only for B. Sc. Information Technology & B.Sc. Computer Science Course. Observing the excellence of the college, the University granted the permission to the college to start B.com, BMS & BBI course in the year 2017 – 18.



Environmental Audit 2019-21





CERTIFICATE OF ENVIRONMENTAL AUDIT

This is to certify that

Pune Vidyarthi Griha's College of Science & Technology (Affiliated to University of Mumbai)

Located at CTS No. 218, Br. Nath Pai Nagar, Ghatkopar (E) Mumbai

Has successfully undergone for Environmental Audit to establish Eco-friendly practices for conservation of environment at all stages. The environmental awareness initiatives taken by the college are substantial to meet all the standards for maintaining a sustainable environment in the college premises.

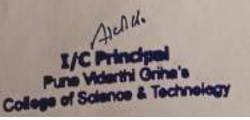


(Term of validity) June, 1" 2019 - May, 31" 2021

Date of Issue: 3rd June 2019

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(Dr. Pramod Salaskar) Dharitree Enviro Research Centre





NEED FOR ENVIRONMENT AUDITING:

Environment auditing is the process of identification and determination of the institution's practices in creating awareness and practising the environment friendly measures. Over the period of time over exploitation of resources like energy, water, etc. have resulted in the environmental degradation. It is necessary to check whether our way of living and handling resources is not going to cause detrimental effects in our surroundings. Environment audit Report aims at summarising the college's contribution and its activeness in creating awareness and consciousness in practically applying the environmental friendly measures towards an institute.

GOALS OF ENVIRONMENT AUDIT:

Identification and documentation of environment practices followed by university.

- 2. Identify strength and weakness in environment practices.
- 3. Analyze and suggest solution for problems identified.
- 4. Assess facility of different types of waste management.
- 5. Increase environmental awareness throughout campus
- 6. Identify and assess environmental risk.
- 7. Motivates staff for optimized sustainable use of available resources.

8. The long-term goal of the environmental audit program is to collect baseline data of environmental parameters and resolve environmental issue before they become problem.

OBJECTIVES OF ENVIRONMENT AUDIT:

- 1. To examine the current practices, which can impact on environment such as of resource utilization, waste management etc.
- 2. 2. To identify and analyze significant environmental issues.
- Setup goal, vision, and mission for environment practices in campus.
- 4. Establish and implement Environment Management in various departments.

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5. Continuous assessment for betterment in performance in environment

ALUNIA I/C Principal Pune Vidartni Griha's College of Science & Technology

Environmental Audit 2019- 21

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BENEFITS OF ENVIRONMENT AUDIT TO EDUCATIONAL INSTITUTIONS:

It would help to protect the environment in and around the campus.

- Recognize the cost saving methods through waste minimization and energy conservation.
- 3. Empower the organization to frame a better environmental performance.
- It portrays good image of institution through its clean and green campus. Finally, it will help to build positive impression for through green initiatives the upcoming NAAC visit

OBJECTIVE AND SCOPE:

- 1. Environmental education through systematic environmental management approach
- 2. Improving environmental standards
- 3. Benchmarking for environmental protection initiatives
- 4. Sustainable use of natural resource in the campus.
- 5. Financial savings through a reduction in resource use
- 6. Curriculum enrichment through practical experience
- Development of ownership, personal and social responsibility for the College campus and its environment
- 8. Enhancement of College profile
- 9. Developing an environmental ethic and value systems in young people

EXECUTIVE SUMMARY:

An environmental audit is a snapshot in time, in which one assesses campus performance in complying with applicable environmental laws and regulations. Though a helpful benchmark, the audit almost immediately becomes outdated unless there is some mechanism in place to continue the effort of monitoring environmental compliance. This audit report contains observations and recommendations for improvement of environmental consciousness.

AILAIL I/C Princ College of Science & Technology

Environmental Audit 2019-21

sr. 10-	Botanical Name	Local Name	Family	Native/ Introd. / Nt.	Vegeta tion type	No. of Individuals plants
-	Aegle marmelos	Bel	Rutaceae	Native	Deciduous	1
1	Annona squamosa	Sitaphal	Annonaceae	Nt	Evergreen	3
2	Artocarpus heterophyllus	Phanus	Moraceae	Native	Evergreen	1
4	Azodirachta indica	Neem	Meliaceae	Native	Evergreen	Z
5	Bombax ceiba	Katesavar	Malvaceae	Native	Deciduous	1
6	Carica papaya	Pappayi	Caricaceae	Native	Evergreen	1
7	Cocos nucifera	Naral	Arecaceae	Native	Evergreen	47
	Delonix regia	Gulmohar	Caesalpiniaceae	Nt	Evergreen	1
8	Dypsis lutescens	Areca paim	Arecaceae	Nt	Evergreen	1
10	Eucalyptus grandis	Neelgiri	Myrtaceae	Nt	Evergreen	3
11	Ficus benghalensis	Vad	Moraceae	Native	Evergreen	1
12	Flcus racemosa	Umber	Moraceae	Native	Evergreen	3
13	Hyophorbe Jagenicaulis	Bottle Palm	Arecaceae	Nt	Evergreen	7
14	Mangifera	Amba	Anacardiaceae	Native	Evergreen	4
15	Moringa	Shevga	Moringaceae	Native	Deciduous	1
16	Murraya	Kaddi patta	Rutaceae	Native	Deciduous	1
17	Neolamarckia	Kadamb	Rubiacea	Native	Evergreen	1
18	Peltophorum	Sonmohar	Caesalpiniaceae	Introd	Evergreen	3
19	Plumeria	Chapha	Apocynaceae	Introd	Evergreen	1
20	Polyalthia	Ashoka	Annonaceae	Native	Evergreen	14
21	Pongamia	Karanj	Fabaceae	Native	Deciduous	1
22	Tectona	Sagwan	Verbenaceae	Native	Deciduous	18
23	Terminalia	Deshibadarr		Native	Deciduou	5 6
		Descination	- Combretante	-	Total	122

ble: Species wise count of trees

156

Ausile I/C Principal Pune Videnthi Grihe's College of Science & Technology

Pune Vidyarthi Griha's College of Science & Technology Environmental Audit 2019- 21/



I diversity observed immediate surroundings of the College Campus

		2: Avifaunal diversi Scientific Name	Common Name	IUCN Status	IWPA Assessment	Feeding Habit	Status
15% NO-	Family	Corvus splendens	House Crow	Least Concern ver 3.1	Schedule - V	Omnivorous	R
1 /2		Corvus macrorhynchos	Jungle Crow	Least Concern ver 3.1	-	Omnivorous	R
1	Pycnonotidae	Pycnonotus cafer	Red Vented Bulbul	Least Concern ver 3.1	Schedule - IV	Omnivorous	R
ĩ		Pycnonotus jocosus	Red Whiskered Bulbul	Least Concern ver 3.1	Schedule - IV	Omnivorous	R
144	Meropidae	Merops orientalis	Small Bee Eater	Least Concern ver 3.1	-	Insectivorous	R
6	Halcyonidae	Halcyon smyrnensis	White- throated Kingfisher	Least Concern ver 3.1	Schedule -IV	Piscivorous & Insectivorous	R
7	Columbidae	Streptopelia chinensis	Spotted Dove	Not Assessed	Schedule -IV	Granivorous	R
8		Columba livia	Blue Rock Pigeon	Least Concern ver 3.1		Granivorous	R
9	Dicruridae	Dicrurus macrocercus	Black Drongo	Least Concern ver 3.1	Schedule - IV	Omnivorous	R
30	Sturnidae	Acridotheres tristis	Common Myna	Least Concern ver 3.1	Schedule - IV	Omnivorous	R
11	Muscicapidae	Copsychus saularis	Oriental Magpie- Robin	Least Concern ver 3.1	-	Insectivorous & Herbivorous	R
12	Cuculidae	Centropus sinensis	Greater Coucal	Least Concern ver 3.1	Schedule -IV	Carnivorous	R

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AMBIENT AIR STA	10/05/2019	1	Analysis Comple	ted On	17/05/2019		
Date Of sampling Location of H.V.S.	1.31		m Main Gate		60		
Lateral Distance	80 Meter fr	rom Main	Gate				
Receptor Distance	1.5 Meters	From Gro	und Level				
	3	2	Humidity (9	6)	43		
Amblent Temperature (°C) Wind Speed (km/hr)	/hr) 08 Wind Direction (deg ⁰)		W 267				
Instruments Used	R.D.S.(APM (GTI-177)	1- 460), F.I	P.S.(APM - 550)), G.P.S.(APM – 411) & Benzene Sampler			
line.		POLLUTI	ONAL PARAME	TERS			
Parameters	Result	Units	NAAQS Limits		Method		
	60	µg/m³	100.00	Disession Station	3): 2006 (RA 2022)		
PM10 PM25	32	µg/m³	60.00	EPA Quality assurance guidance document 2.12, based on CPCB- 202			
	19	µg/m³	80.00	HOLDON/200 RELIGING): 2001 (RA 2022)		
502	17	µg/m³	80.00	IS 5182 (Part 6): 2006 (RA 2022)			
vO2 Ammonia (NH3)	<20	μg/m³	400.00	CPCB Guidelines For Measurement Of Ambient Air Pollutants Volume-I ,2011			
-	0.86	mg/m ³	04.00	T Destroyal Dave 1	10) : 1999 (RA 2019)		
ead as Pb	<0.1	µg/m³	01.00	3.5:2012	ium method IO		
	<4	µg/m³	5.00		11) :2006 (RA 2022)		
enzene (C ₆ H ₆) rsenic(As)	<5	ng/m³	6.00	3.5:2012	lium method IO		
ickel(Ni)	< 5	ng/m³	20.00	EPA compendium method IO 3.5:2012			
		µg/m³	180.00		9): 1974 RA 2019		
zone (O3)	13	ng/m ³	1.00	IS 5182 (Part 12): 2004 (RA 2019) tested & the condition prevailing at th			

NOTE: 1) The above results relate only to the item tested

2) PM₁₀-Particulate Matter of size < 10 μm, PM₂₃ - Particulate Matter of size < 2.5 μm
3) NAACCO 10

4) Lower Detection Limit (NH₃ <20 μ g/m³), (Pb <0.10 μ g/m³), (C₃H₆ <4 μ g/m³), (As <5 ng/m³), (Ni <5 ng/m³) 3) NAAQS-National Ambient Air Quality Standards

(Ni <5 ng/m³), (Benzo(a)Pyrene < 0.1 ng/m³)

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Pune Videnthi Griha's College of Science & Technology

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Environmental Audit 2019-21

	AMBIENT NOISE L	EVEL MONITORING		
Date Of Mo	nitoring : 24.05.20	19		
Sampling Lo	ocation : 50 Meter	from Main Gate		
Sr. No.	Time	Noise Levels in dB(A) Leo		
1	8.00 am	39.4		
2	9.00 am	42.4 .		
3	10.00 am	56.8		
4	11.00 am	51.6		
5	12.00 am	48.2		
6	2.00 pm	50.4		
7	4.00 pm	44.2		
8	6.00 pm	57.2		



Method:-IS:9989-1981 (RA 2001)

NOTE: 1) CPCB Limit During Day time < 55. (Day time shall mean from 6.00 am to 10.00 pm.) 2) CPCB Limit During Night time < 45. (Night time shall mean from 10.00 pm to 6.00 am.)

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Environmental Audit 2019-21

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			1	ANALYSIS T	EST REPORT	г		1	1
	ple Collection Date		10/05	/2019	Ana	lysis	Completed On	24/05/2019	4
2	ple Conco		Cante	anteen					
31	pling Point	Drinki	rinking Water						
1	ale Details		PVC C	an	San	nole	Quantity	5000 ml	-
in an	iple Container								_
- Annon	parameter	Re	sult	Unit	IS desiral Limit (As IS 1050	per	Me	thod	
100.00		7	.6		6.5 - 8.	5	IS 3025 (Part-11): 2022	
1-1	pH Colour		:5	CU	5.0		IS 3025 (Part-4/	4): 2021	
1	Odour	Agreeable			Agreeat	ole	153025 (Part-5):	:2018:RA 2022	
-	TDS	1	16	mg/lit	500		IS 3025 (Part-16):2023		
-	Turbidity	<	1.0	NTU	1.00	11	IS 3025 (Part-10)): 1984:RA 202	2
	Ammonia	<	0.5	mg/lit	0.5		IS 3025 (Part 34 1988:RA 2019		
-	Chlorides as Cl	1	3.4	mg/lit	250.0	0	IS 3025 (Part 32 2019	and the second	
L	Fluorides as F	0	0.6			APHA (24th Edition) 4500 F-D -		*	
	Residual Chlorine	<	0.2	mg/lit	0.2		IS 3025 (P-26/5		
L	Nitrate as NO ₃	1	1.2	mg/lit	45.00	0	the second se	tion) 4500- NO:	-B -
Ļ	Total Alkalinity as	4	6.8	mg/lit	200		C PA 1/0 OFT A REAL PROPERTY AND A REAL PROPER	/8.1):1986: RA	
000	Total Hardness as	5	4.2	mg/lit	200.0	0		/5):2009: RA 20	
SUC 11 121	Sulphate as SO4		2.8	mg/lit	200.0	00	APHA (24th Ed - 2022	ition) 4500 SO4	1-E
			0.05	mg/lit	0.05	5		7/sec1/4) :2021	
	Cyanide as CN	193	2.4	mg/lit	75.0	0		0/5):1991: RA 2	
	Calcium as Ca	-	1.60	mg/lit	30.0	0		2-6):2003: RA	
	Magnesium as	-	- 10 m	mg/lit	0.05	5	IS 3025 (Part4	6/6):1994: RA	2019
	Total Chromium	<	0.01	mg/lit	0.05	-	13 3023 (18114		N.

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I/C Principal Pune Vidarthi Gritha's College of Science & Technology

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Environmental Audit 2019-21

SOLID WASTE MANAGEMENT

Aim^{1*} 1) Scientific disposal of solid waste 2) Protection of human health and environment objective:-1) To increase recycling level 2) To reduce organic waste in landfills 3) To control air, water, soil pollution 4) Production of green manure and vermicompost.

Activity / Observation :

Solid waste is separated as dry and wet. Dry waste includes plastic, glass, paper, metals, wood and related product. Wet waste typically refers to organic waste usually generated as canteen waste, plant debris. Dry waste is separated and it is given for its reuse and recycling to the recycler agency to avoid the pollution. Wet waste is also known as organic waste. It is obtain from canteen , fallen leaves , litter, ort, trash etc. produce in this campus if it is not disposed properly it creates air pollution, to avoid this we have implemented solid organic waste management activity, we run it at two level one is decomposition of solid waste through the composting in pit, vermicompost form solid organic waste and second is training to the students, farmers about production of organic manure like vermicompost, production of mushroom from the solid organic agricultural waste which ultimately conversion of Best from Waste, further the best biofertilizer is used for plants of college campus which enhances greenery leads environment clean and fresh.



AWAR I/C Princip Pune Vidartni Griha's College of Science & Technology

Environmental Audit 2019-21

ENVIRONMENT AWARENESS PROGRAM

Aim and objective:

- To plan, organize and implement programmes like landscape and plantation, water
- management & conservation, and rain water harvesting.
- To provide education that prepares students for leadership and social responsibility teaching them to think and communicate effectively and develop a global awareness. . To introduce environmental education programmes for strengthen the existing
- ecological and environment related training infrastructure. To organize training programmes for vocationalisation of environmental careers.
- To strengthen Global Environmental Education Programmes for standardization of
- greening activities. To introduce environmental education programmes in strengthen the existing
- ecological and environment related training infrastructure. To make special plans for the studies vermiculture, plantation, nursery development,
- water & energy conservation and management, rain water harvesting and other
- To provide environmental education that prepares students for leadership and social responsibility by teaching them to think and communicate effectively and develop global environmental awareness and sensitivity.

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Environmental Audit 2019-21

ventilation and Indoor Air Quality (IAQ) :

- There is adequate size of windows in college class rooms as well as in corridor which allow sufficient light and ventilation.
- Corridors are wide with good ceiling height
- Classrooms also have high ceiling with wide doors. Windows are kept open to receive sunlight.
- All classrooms are provided with ceiling fans for proper air circulation.

Water Efficiency & Wastewater Management:

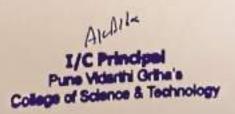
- Two RO filtration plant has been installed on main building to provide clean drinking water in campus.
- No water leakage observed anywhere in Campus.
- The students have awareness for water conservation.

Energy Efficiency:

- All the CRT monitors of computers have been replaced with LED monitors.
- Computers are kept switched off when not required to operate.
- Save energy posters/stickers such as "Switch off all electrical equipment's when not required to use" at maximum locations to spread energy conservation awareness.
- All conventional incandescent tube lights are replaced with LED tube lights.

Ambiance and Acoustic Control:

- Tree plantation in and around the campus help in reducing ambient temperature and acoustic control.
- The college is located away from road side so there is no major noise pollution.





Waste Management:

paper waste Being academic institution has taken store to be main solid waste generated in the

- premises. The institution has taken steps to minimize usage of papers by implementing e-notice board.
- Both sides of the pages are utilized to avoid excess paper usages. paper wastes are not directly disposed off in dustbin, it is given to local vendors for
- recycling and reuse.

e-waste

- The college has taken initiative to segregate and collect e-wastes and stored at
 - designated place for its proper disposal.

Canteen and Solid Waste Management Wet and dry wastes are segregated in college canteens and directly handed over to

- the concern Municipal Corporation for disposal. Bio-degradable and non-biodegradable waste is generated labs, are also segregated
- and disposed of through Municipal Corporation .

AKAIKE

I/C Principal Pune Vidanthi Griha's College of Science & Technology



CERTIFICATE OF ENVIRONMENTAL AUDIT

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(Affiliated to University of Mumbai)

Located at CTS No. 218, Br. Nath Pai Nagar, Ghatkopar (E) Mumbai

Has successfully undergone for Environmental Audit to establish Eco-friendly practices for conservation of environment at all stages. The environmental awareness initiatives taken by the college are substantial to meet all the standards for maintaining a sustainable environment in the college premises.



(Term of validity) June, 1" 2021 - May, 31" 2023

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(Dr. Pramod Salaskar) Dharitree Enviro Research Centre

Date of Issue: 6th June 2021



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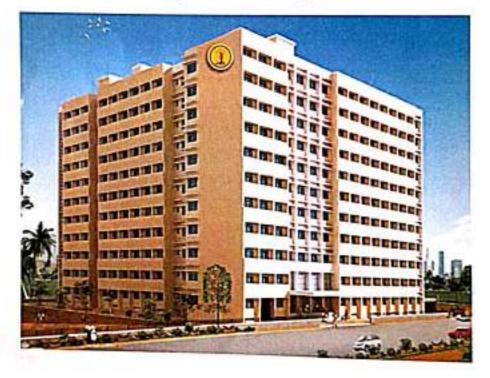
B/1302, Runwal Regency, Opp. to Petrol Pump, Majiwada village Road, Thane (W) -400 601 - India Email : pramodsalaskar.64@gmail.com / powai_mumbai@yahoo.co.in



Pune Vidyarthi Griha's College of Science & Technology

ENVIRONMENTAL AUDIT REPORT

(2021 - 2023)



For Dharitree' Enviro Research Centre

Proprietor

Environmental Audit 2021 - 23

preface



pune Vidyarthi Griha's College of Science & Technology aims at producing awareness about the environment consciousness. The Institute takes initiatives to organize different events of green practices to percolate the knowledge amongst students, teachers, and nonteaching staff. This green message being transferred along with its practical dimensions among the families, societies and thereby to the stakeholders, forms a chain and network to spread the message at large. College is also almed at giving solution to the different burning topics related to the environment, its awareness as well as its protection. As the government is taking initiative to sensitize mass with environment protection, newer concepts are being introduced to make college eco-friendly. To create and conserve the environment within the campus and to solution, water reduction, water harvesting, solid waste management, improvement in the air quality of the campus, control on noise pollution, and minimizing the use of Plastic, etc. is one of the prime objectives of the college.

Environment audit report is one such initiative that has been introduced to make the educational institute environmentally sustainable and active in spreading the education about the same. It is a tool to assess general practices implemented by the organization in terms of the impact on environment. The report also aims to spread the awareness on the adverse practices that are responsible for the degradation of the environment and how strongly the institute is involved in curtailing those practises. It helps in recognizing the need of a college to work around the year for environment sustainability. Thus, Environment audit forms the base line survey to decide for the green policy.

I/C Principal: Pune Vidyarthi Griha's College of Science & Technology

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Acknowledgement....



We take this opportunity to express our gratitude towards the president of the Institute, Hon. President, Shri. Sunil Redekar and Hon. Secretary of College Development Committee, pr. Rajendar Kambale, & Hon. Director Shri. Rajendra Borade and all Hon. Members of the CDC committee of the college for their valuable guidance, continuous encouragement, generous gift of time with constructive criticism & suggestion during the composition of work of entire," Environmental Audit Report- 2023".

We also express our deep sense of gratitude to our Hon. Principal, Dr Ajay Kumar Pathak, who inspired and encouraged us throughout the work. We gratefully acknowledge the help provided by him on several occasions.

It is right time to express our deep sense of gratitude to our college Prof. Meena Patel, Prof. Sita Nadar, . rof. Gaurav Singh for their continuous help, inspiring resoluteness and sensible suggestion without any reservation whenever we approached throughout investigation.

We are thankful to Dr. B.G Kulkarni for his valuable guidance. We are equally thankful to our colleagues' teachers and students of B.Sc. Cs/B.Sc. IT B.com/ BMS which helps during data collection and identification of plants.

Coordinator, Green Audit Report

AWAIN I/C Principal Pune Vidyarthi Griha's College of Science & Technology

Environmental Audit 2021 - 23

cipal Message....



press my hearty wishes for success of this publication of 'Environmental Audit 2021- 2023'. orts made by our institution and senior college for the protection of environment and poliversity conservation is really unique, which may become pilot project gives message pout to avoid the for coming natural disaster like global warming, land sliding etc. We try to aintain environment eco-friendly through activities like landscaping and plantation, rain nater harvesting, solid waste Management, sewage treatment plant, energy conservation, -waste management, and paperless technology to minimize the use of paper basically prepare from the plants.

The ultimate aim of our institution to develop youth as fertile probe who understand for their social responsibilities.

Texpress my hearty wishes for success of this movement of Environmental Audit Report for the new beginning of the conservation from the doorstep of the people. Our green audit reflects assessment and achievement of vision and mission of the college.

Dr. Ajay Kumar Pathak Vc Principal

AKAILee I/C Principal Pune Vidyanhi Griha's College of Science & Technology

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Environmental Audit 2021 - 23



ENVIRONMENTAL AUDIT REPORT COMMITTEE

(2021 - 2023)

ŋ.	Name	Designation	Committee Role	Signature
-	Dr. Ajay Kumar Pathak	I/C Principal	Coordinator	ALONE
	Dr. Pramod Salaskar	Dharitree Enviro Research Centre	External Auditor	molonice
-	Prof. Meena Patel	Asst. Professor	Internal Auditor	1 APatel
-	Prof. Sita Nadar	Asst. Professor	Internal Auditor	Strain
-	Prof. Gaurav Singh	Asst. Professor	Internal Auditor	U.Sinum
-	Prof. Archana Bhosale	Asst. Professor	Internal Auditor	Talusale

ANGHIN I/C Principal: Pune Vidyarthi Griha's College of Science & Technology

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BENEFITS OF ENVISIONMENT AUDIT TO EDUCATIONAL INSTITUTIONS:



1. It would help to protect the environment in and around the campus.

2. 2. Recognize the cost saving methods through waste minimization and energy conservation.

3. Empower the organization to frame a better environmental performance.

- 4. It portrays good image of institution through its clean and green campus. Finally, it will
- help to build positive impression for through green initiatives the upcoming NAAC visit

OBJECTIVE AND SCOPE:

- 1. Environmental education through systematic environmental management approach
- Improving environmental standards
- Benchmarking for environmental protection initiatives
- Sustainable use of natural resource in the campus.
- Financial so vings through a reduction in resource use
- Curriculum enrichment through practical experience
- Development of ownership, personal and social responsibility for the College campus
 - and its environment
- Enhancement of College profile
- Developing an environmental ethic and value systems in young people

EXECUTIVE SUMMARY:

An environmental audit is a snapshot in time, in which one assesses campus performance in complying with applicable environmental laws and regulations. Though a helpful benchmark, the audit almost immediately becomes outdated unless there is some mechanism in place to Continue the effort of monitoring environmental compliance. This audit report contains observations and recommendations for improvement of environmental consciousness.

Pune Vidyanhi Griha's College of Science & Technology

NEED FOR ENVIRONMENT AUDITING:



Environment auditing is the process of identification and determination of the institution's Environment friendly measures. Over the period of time over exploitation of resources like energy, water, etc. have resulted in the environmental degradation. It is necessary to check whether our way of living and handling resources is not going to cause detrimental effects in our surroundings. Environment audit Report aims at summarising the college's contribution and its activeness in creating awareness and consciousness in practically applying the environmentally friendly measures towards an institute.

GOALS OF ENVIRONMENT AUDIT:

Identification and 'ocumentation of environment practices followed by university.

2. Identify strength and weakness in environment practices.

3. Analyse and suggest solution for problems identified.

4. Assess facility of different types of waste management.

5. Increase environmental awareness throughout campus

Identify and assess environmental risk.

Motivates staff for optimized sustainable use of available resources.

8. The long-term goal of the environmental audit program is to collect baseline data of environmental parameters and resolve environmental issue before they become problem.

OBJECTIVES OF ENVIRONMENT AUDIT:

- 1. To examine the current practices, which can impact on environment such as of resource utilization, waste management etc.
- 2. 2. To identify and analyse significant environmental issues.
- Setup goai, vision, and mission for environment practices in campus.
- Establish and implement Environment Management in various departments. 5. Continuous assessment for betterment in performance in environment

I/C Principal Pune Vidyarthi Griha's College of Science & Technology 100

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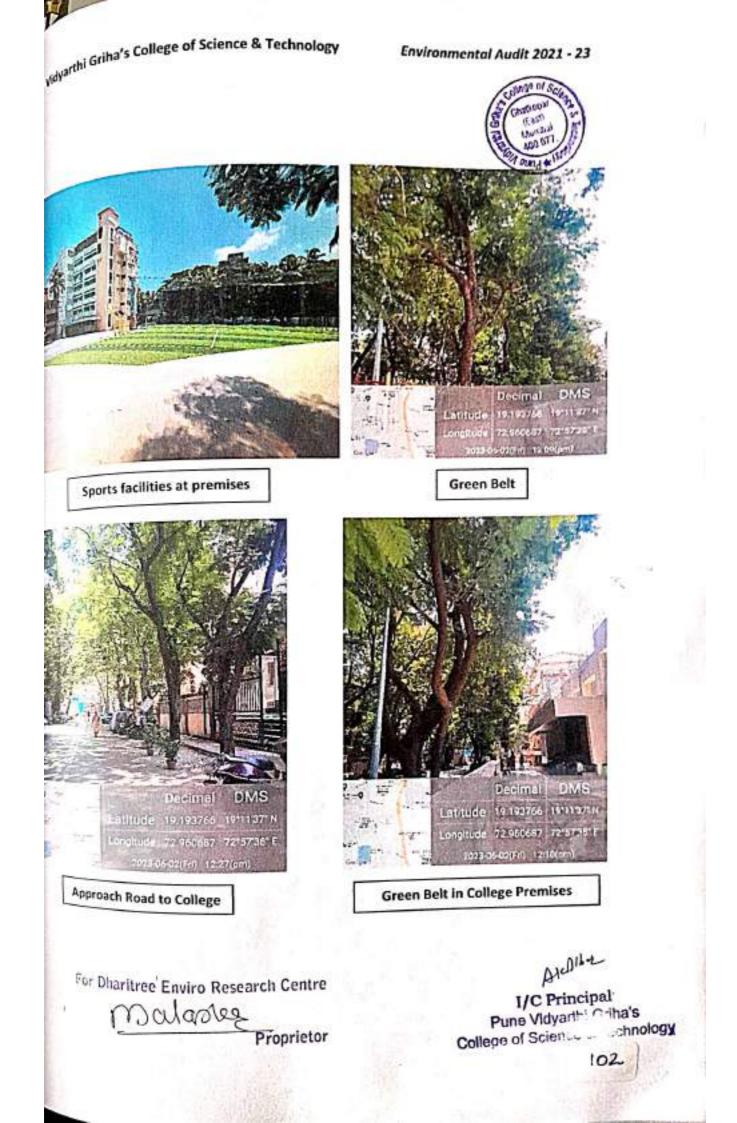


location: Vidyarthi Griha's College of Science & Technology located at CTS No. 218, Br. Nath Pai Note Anatkopar-E Ghatkopar (East) Mumbai-400077 Mark N^{une} Vier Ghatkopar-E Ghatkopar (East) Mumbai-400077, Maharashtra, India.



India			
Maharashtra			
Mumbai			
Mumbai			
Ghatkopar East			
20 meters			
Population (2020): 146056			
Population (2007) Male Population: 76084 Female Population: 69972			
01-022			
Marathi, English Approximately 9,586.65q.			
meter 467.3 meter			
Approximately 4074 19°04.197'N; 72°54.236'E			
19º04.197'N; 72 5			

ANDIA I/C Principal: Pune Vidyarthi Griha's College of Science & Technology 101



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1 100%

anonmendations: profine can be used in all sections to minimize the usage of fluorescent tubes tor management still needs to be practice to

Waste water management still needs to be practiced and designed in the campus.

^{Were} o^{rips} and sprinklers can be used for watering the gardens and lawns.

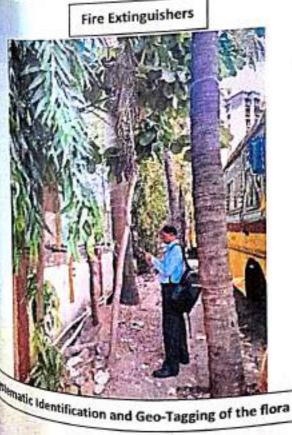
^{Roof top} rain water harvesting can be designed and constructed. ,special days like, Teachers Day, Guru Poornima, van Mahotsav can be celebrated by plant

*Fwaste segregation, handling and disposal can be deployed at the campus.

PHOTO GALLERY







Environmental Education program 103 I/C Principal Pune Vidyarihi Griha of Science & Technology

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CERTIFICATE OF ENVIRONMENTAL AUDIT

This is to certify that

Pune Vidyarthi Griha's College of Science & Technology (Affiliated to University of Mumbal)

Located at CTS No. 218, Br. Nath Pai Nagar, Ghatkopar (E) Mumbai

Has successfully undergone for Environmental Audit to establish Eco-friendly practices for conservation of environment at all stages. The environmental awareness initiatives taken by the college are substantial to meet all the standards for maintaining a sustainable environment in the college premises.



(Term of validity) June, 1" 2021 - May, 31" 2023

Date of Issue: 6th June 2021

(Dr. Pramod Salaskar) Dhantree Enviro Research Centre

Dalade

For Dharitree' Enviro Research Centre

AluAli-C I/C Principal Pune Vidyarthi Griha's College of Science & Technology 105



AMBIENT NOISE LEVEL MONITORING

Date Of Monitoring: 03.02.2023

Sampling Location: 50 Meter from Main Gate

Sr. No.	Time	Noise Levels in dB(A) Leq
1	8.00 am	44.7
2	9.00 am	46.4
3	10.00 am	59.8
4	11.00 am	54.3
5	12.00 am	51.2
6	2.00 pm	49.8
7	4.00 pm	56.1
8	6.00 pm	58.4

Method: -15:9989-1981 (RA 2001)

NOTE: 1) CPCB Limit During Day time < 55. (Day time shall mean from 6.00 am to 10.00 pm.) CPCB Limit During Night time < 45. (Night time shall mean from 10.00 pm to 6.00 am.)

For Dharitree Enviro Research Centre alarve Proprietor

Alalle I/C Principal: Pune Vidyarthi Griha's College of Science & Technology

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M^{te Vidyarthi} Griha's College of Science & Technology

Environmental Audit 2021 - 23

		AMBIE	NT AIR STATIO	DN	Contraction of the second			
aumpling	06/01/2023	A	nalysis Compl	eted on	13/01/2023 400			
pute Of sampling tecation of H.V.S.	Approx. 50) meters fr	om Main Gate	e	and and			
lateral Distance	50 Meter f	rom Main	Gate					
atera Distance	1.5 Meters	from Grou	und Level					
	2	6 Humidity (%) 45						
Indiana Interperature (°C) Vind Speed (km/hr)	0	9	Wind Dire	ction (deg ⁰)	W 280			
astruments Used	R.D.S. (APM (GTI-177)	M- 460), F.I	460), F.P.S. (APM – 550), G.P.S. (APM – 411) & Benzene Sample					
		POLLUTIC	NAL PARAME	TERS				
Parameters	Result	Units	NAAQS Limits	Me	Method			
PMao	68	μg/m³	100.00	IS 5182 (Part 23): 2006 (RA 2022)				
Mus	33	µg/m³	60.00	EPA Quality assurance guidance document 2.12, based on CPCB- 2011				
0;	16	μg/m³	80.00	IS 5182 (Part 2): 2001 (RA 2022)				
102	22	μg/m³	80.00	IS 5182 (Part 6): 2006 (RA 2022)				
mmonia (NH3)	<20	μg/m ³	400.00	CPCB Guidelines for Measurement of Ambient Air Pollutants Volume-I ,2011				
D D	0.97	mg/m ³	04.00	IS 5182 (Part 10):	1999 (RA 2019)			
ead as Pb	<0.1	µg/m³	01.00	EPA compendium 3.5:2012	method IO			
enzene (C ₆ H ₆)	<4	μg/m³	5.00	IS 5182 (Part 11) :2	2006 (RA 2022)			
(senic (As)	< 5	ng/m³	6.00	EPA compendium method IO 3.5:2012				
lickel (Nii)	< 5	ng/m ³	20.00	EPA compendium 3.5:2012	method IO			
Dane (O1)	14	µg/m³	180.00	15 5182 (Part 9): 19				
enzo(a)Pyrene			1.00	IS 5182 (Part 12): 2	0004 (RA 2019)			

NOTE: 1) The above results relate only to the item tested & the condition prevailing at the time of sampling

² PM₁₀-Particulate Matter of size < 10 μm, PM₂₅ - Particulate Matter of size < 2.5 μm ³ NAAQS-National Ambient Air Quality Standards

4) Lower Detection Limit (NH₃ <20 μg/m³), (Pb <0.10 μg/m³), (C₃H₆ <4 μg/m³), (As <5 ng/m³). (Ni <5 ng/m³), (Benzo(a)Pyrene < 0.1 ng/m³)

For Dharitree Enviro Research Centre

ordes Proprietor

Alena I/C Principal Pune Vidyarthi Griha's College of Science & Technology



Environmental Audit 2071 - 23



Table: Lepidopteran diversity observed in the Odlege Campu

Common Hame	Scientific Hama	Family	Status
Cannon Jay Lone Butterfly	Graphium doson Popilio demoleus	Papitunidan Papitunidan	G
02000900 12200000	Popilio polytas	Papilionides	15 16
Gannon Filiattoss	Applas albina	Vintidan	C
Common Grass	Eurema hecabe	Pieridse	VC
Small Grass felsow	Euremo brigitto	Vieridae	c
Viain Lout	Danaus chrysippus	14/mphalutae	110
Ozonon Indian Oloni	Euploea core	Winshaladan	VC
Common Saller	Heptis hylas	Bymphatadae	VC
Opennou Partica	Castalius rosimon	Lycaenodae	VC

COmmon, VC: Very Common

" - "seritree' Enviro Research Centre

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I/C Principal Pune Vidyarbi Grita's Odlege of Science & Technology

Environmental Audit 2021 - 23

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(E251)

Gate

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Table 2: Avifaunal diversity observed immediate surroundings of the College Camper

1	Family	Scientific Name	Common Name	IUCN Status	IWPA Assessment	Feeding Habit	Dwellin Status
0	orvidae	Corvus splendens	House Crow	Least Concern ver 3.1	Schedule - V	Omnivorous	R
		Corvus macrorhynchos	Jungle Crow	Least Concern ver 3.1	-	Omnivorous	R
venonotidae		Pycnonotus cafer	Red Vented Bulbul	Least Concern ver 3.1	Schedule - IV	Omnivorous	R
		Pycnonotus jocosus	Red Whiskered Bulbul	Least Concern ver 3.1	Schedule - IV	Omnivorous	R
1	Meropidae	Merops orientalis	Small Bee Eater	Least Concern ver 3.1	-	Insectivorous	R
-	Halcyonidae	Halcyon smyrnensis	White- throated Kingfisher	Least Concern ver 3.1	Schedule -IV	Piscivorous & Insectivorous	R
	Columbidae	Streptopelia	Spotted Dove	Not Assessed	Schedule -IV	Granivorous	R
		Columba livia	Blue Rock Pigeon	Least Concern ver 3.1	-	Granivorous	R
1	Liothrichidae	Turdoides striatus	Jungle Babbler	Least Concern ver 3.1	Schedule -IV	Omnivorous	R
and a support of the local division of the l	Dicruridae	Dicrurus macrocercus	Black Drongo	Least Concern ver 3.1	Schedule - IV	Omnivorous	R
and the second s	Sturnidae	Acridotheres tristis	Common Myna	Least Concern ver 3.1	Schedule - IV	Omnivorous	R
	Muscicapidae	e Copsychus saularis	Oriental Magpie- Robin	Least Concern ver 3.1		Insectivorous & Herbivorous	
1-	Cuculidae	Centropus sinensis	Greater	Least Concern ver 3.1	Schedule -IV	Carnivorous	R

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		Table:	Species wise cou	int of tre	es	The Continue
sr. No.	Botanical Name	Local Name	Family	Native/ Introd, / Nt.	Vegeta tion type	individuals
1	Aegle	Bel	Rutaceae	Native	Deciduous	1
	marmelos Annona	Sitaphal	Annonaceae	Nt	Evergreen	3
	squamosa Artocarpus	Phanus	Moraceae	Native	Evergreen	1
1	heterophyllus Azadirachta	Neem	Meliaceae	Native	Evergreen	2
-	_{indica} Bombax ceiba	Katesavar	Malvaceae	Native	Deciduous	1
5	Carica papaya	Pappayi	Caricaceae	Native	Evergreen	1
6	Cocos nucifera	Naral	Arecaceae	Native	Evergreen	47
1	Cocos nocije	Gulmohar	Caesalpiniaceae	Nt	Evergreen	1
8 9	Delonix regia Dypsis	Areca palm	Arecaceae	Nt	Evergreen	1
10	lutescens Eucolyptus	Neelgiri	Myrtaceae	Nt	Evergreen	3
11	grandis Ficus	Vad	Moraceae	Native	Evergreen	1
12	benghalensis Ficus	Umber	Moraceae	Native	Evergreen	3
13	racemosa Hyophorbe	Bottle Palm	Arecaceae	Nt	Evergreen	7
14	lagenicaulis Mangifera	Amba	Anacardiaceae	Native	Evergreen	4
15	indica Moringa	Shevga	Moringaceae	Native	Deciduous	1
15		Kaddi patta	Rutaceae	Native	Deciduous	1
17	koenigii Neolamarckia	Kadamb	Rubiacea	Native	Evergreen	1
18	e tophion and	Sonmohar	Caesalpiniaceae	Introd	Evergreen	3
19	- Samering	Chapha	Apocynaceae	Introd	Evergreen	1
20	1 or you child	Ashoka	Annonaceae	Native	Evergreen	4900
21	longifolia Pongamia Pinnata	Karanj	Fabaceae	Native	Deciduous	
22	2 Tectona grandis	Sagwan	Verbenaceae	Native	Deciduous	
2	3 Terminalia catapa	Deshibadam	Combretaceae	Native	Total	122
-	100 May 100				10.0	

Alder 1/0 I/C Princ Pune Vidyarthi Griha's College of Science & Technology

N^{pe} Vidyarthi Griha's College of Science & Technology

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Waste Management:



paper waste

- Being academic Institution, waste paper is the main solid waste generated in the premises. The institution has taken steps to minimize usage of papers by implementing e-notice buard.
- Both sides of the pages are utilized to avoid excess paper usages.
- Paper wastes are not directly disposed off in dustbin, it is given to local vendors for recycling and reuse.

e-waste

 The college has taken initiative to segregate and collect e-wastes and stored at designated place for its proper disposal.

Canteen and Solid Waste Management

- Wet and dry wastes are segregated in college canteens and directly handed over to the concern Municipal Corporation for disposal.
- Bio-degradable and non-biodegradable waste is generated labs, are also segregated and disposed of through Municipal Corporation

Summary:

Environment Audit is one of the important tools to check the balance of natural resources and its judicial use. Environment auditing is the process of identifying and determining whether institutional practices are eco-friendly and sustainable. It is a process of regular identification, quantification, documenting, reporting and monitoring of environmentally important components in a specified area. College has conducted a "Environment Audit" in the academic year 2023. The main objective to carry out environment audit is to check the Breen practices followed by college and to conduct a well-defined audit report to understand whether in the academic year to understand to conduct a method audit report to understand

whether the Institute is on the track of sustainable development.

ALCALL 1/C Principal Pune Vidyarthi Griha's College of Science & Technology

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Water Efficiency & Wastewater Management:

- Two RO filtration plant has been installed on main building to provide clean drinking .
- water in campus.
- No water leakage observed anywhere in Campus. .
- The students have awareness for water conservation.

Energy Efficiency:

.

- All the CRT monitors of computers have been replaced with LED monitors. .
- Computers are kept switched off when not required to operate.
- Save energy posters/stickers such as "Switch off all electrical equipment's when not required to use" at maximum locations to spread energy conservation awareness.
- All conventional incandescent tube lights are replaced with LED tube lights.

Ambiance and Acoustic Control:

- Tree plantation in and around the campus help in reducing ambient temperature and acoustic control.
- The college is located away from road side so there is no major noise pollution.

ANIN I/C Principat Pune Vidyarthi Griha's College of Science & Technology

Environmental Audit 2021 - 23

ENVIRONMENT AWARENESS PROGRAM



Aim and objective:

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To plan, organize and implement programmes like landscape and plantation, water management & conservation, and rain water harvesting.

- To provide education that prepares students for leadership and social responsibility teaching them to think and communicate effectively and develop a global awareness. , To introduce environmental education programmes for strengthen the existing ecological and environment related training infrastructure. .
- To organize training programmes for vocationalisation of environmental careers.
- To strengthen Global Environmental Education Programmes for standardization of . greening activities.
- . To introduce environmental education programmes in strengthen the existing ecological and environment related training infrastructure.
- To make special plans for the studies vermiculture, plantation, nursery development, water & energy conservation and management, rain water harvesting and other related fields.
- To provide environmental education that prepares students for leadership and social responsibility by teaching them to think and communicate effectively and develop global environmental awareness and sensitivity.

Ventilation and Indoor Air Quality (IAQ):

- There is adequate size of windows in college class rooms as well as in corridor which allow sufficient light and ventilation.
- Corridors are wide with good ceiling height
- Classrooms also have high ceiling with wide doors. Windows are kept open to receive sunlight.
- All classrooms are provided with ceiling fans for proper air circulation.

AUNIC I/C Principal Pune Vldyarthi Grihe College of Science & Tech

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SOLID WASTE MANAGEMENT



Aim: 1) Scientific disposal of solid waste 1) Scientific disposal of solid waste 1) Protection of human health and environment

objective: -1) To increase recycling level 2) To reduce organic waste in landfills 3) To control air, water, soil pollution 3) To control of green manure and vermicompost.

Activity / Observation:

Sold waste is separated as dry and wet. Dry waste includes plastic, glass, paper, metals, wood and related product. Wet waste typically refers to organic waste usually generated as canteen waste, plant debris. Dry waste is separated and it is given for its reuse and recycling to the recycler agency to avoid the pollution. Wet waste is also known as organic waste. It is obtain from canteen , fallen leaves , litter, ort, trash etc. produce in this campus if it is not disposed properly it creates air pollution, to avoid this we have implemented solid organic waste management activity, we run it at two level one is decomposition of solid waste through the tomposting in pit, vermicompost form solid organic waste and second is training to the sudents, farmers about production of organic manure like vermicompost, production of sudents, farmers about production of organic manure like vermicompost, production of waste, further the best biofertilizer is used for plants of college campus which enhances greenery leads environment clean and fresh.

ALAILE I/C Principal Pune Vidyarthi Griha's College of Science & Technology

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Environmental Audit 2021 - 23

	ANALYSIS TE	ST REPORT	Con)
Date	17/03/2023	Analysis Completed on	18010 800 /2023
e Collection Date	Canteen		
pling point	Drinking Water		
le Details de Container	PVC Can	Sample Quantity	5000 ml

1/2	Parameter	Result	Unit	IS desirable Limit (As per IS 10500) (As	Method	
		7.4		6.5 - 8.5	IS 3025 (Part-11): 2022	
-	pH	<5	CU	5.0	IS 3025 (Part-4/4): 2021	
-	Colour			Agreeable	IS3025 (Part-5):2018:RA 2022	
-	Odour	Agreeable		500	IS 3025 (Part-16):2023	
-	TDS	112	mg/lit	1.00	IS 3025 (Part-10): 1984:RA 2022	
-	Turbidity	<1.0	NTU		IS 3025 (Part 34/2.2 & 2.3):	
-		<0.5	mg/lit	0.5	01010	
	Ammonia	10000	- (1)+	250.00	1988:RA 2019 IS 3025 (Part 32/2): 1988: RA	
7 0	Chlorides as Cl	15.6	mg/lit		2019 APHA (24 ^{1h} Edition) 4500 F – D -	
		0.8	mg/lit	1.0	us 2025 (P-26/5):2021	
	Fluorides as F	<0.2	mg/lit	0.2	ADMA (24th Edition) 4500- NO3-B	
	Residual Chlorine	10.4	mg/lit	45.00	10 2025/Part23/8.1):1986: RA	
1	Nitrate as NO3	48.37	mg/lit	200	1 2025/Part21/5):2009: RA 2019	
12	Total Alkalinity as Total Hardness as	58.00	mg/lit	200.00	APHA (24th Edition) 4500 SO4	
B		3.6	mg/lit	200.00		
	Sulphate as SO4	5.0	1	0.05	- 2022 IS 3025 (Part27/sec1/4) :2021 IS 3025 (Part40/5):1991: RA 2019 IS 3025 (Part40/5):2002: RA 2019	
14	Cyanide as CN	<0.05	mg/lit	75.00	E7.61 2003. 10-	
15/2	concruiting 7 CG	14.43	mg/lit	30.00	IS 3025 (Part 52-0). IS 3025 (Part 46/6):1994: RA 2019	
15		5.34	mg/lit	0.05	IS 3025 (Participation	
11	Total Chromium	<0.01	mg/lit			

For Dharitree Enviro Research Centre malarks Proprietor

ANDINE I/C Principal: Pune Vidyarthi Griha's College of Science & Technology

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idnowledgement....

Ghatlen (East) Mark 400 017

Ne^{take} this opportunity to express our gratitude towards the president of the Institute, Hon. Mesident, Shri. Sunil Redekar and Hon. Secretary of College Development Committee pr. Rajendar Kambale, & Hon. Director Shri. Rajendra Borade and all Hon. Members of the pt committee of the college for their valuable guidance, continuous encouragement, prerous gift of time with constructive critism & suggestion during the composition of work dentre," Green Audit Report- 2023".

We also express our deep sense of gratitude to our Hon. Principal, Dr Ajay Kumar Pathak, who inspired and encouraged us throughout the work. We gratefully acknowledge the help provided by him on several occasions.

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We are thankful to Dr. B.G Kulkarni for his valuable guidance. We are equally thankful to our colleagues' teachers and students of 1.Sr. Cs/B.Sc. IT B.com/ BMS which helps during data collection and identification of plants.

Coordinator, Green Audit Report

ANDIL I/C Principal Pune Vidyarthi Griha's College of Science & Technology

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date.

Green Audit 2021 - 23

G1#31.04

"Green" means eco-friendly or not damaging the environment. "Green Auditing".

station of green audit is not limited to the decorating the college campus but also corporate station of green audit is not limited to the decorating the college campus but also corporate statistic, with quality education keep college environment eco-friendly with its facilities. The been made on that direction by landscaping and plantation, solid waste statement, recycling of waste water, conservation of energy, water conservation, mater harvesting and minimum of usage of paper.

Interpring this view our campus is clean and fresh, we try to inculcate value of surrounding prominent amongst the students through Environmental awareness activities like nature to NSS[®], Quiz competition on environment, Flower Arrangement, Gardening development re nursery management course, Mushroom cultivation course, Production of encomposting from solid waste and activity like Competition on Preparation of "Best from late", preparation of trenches and plantation of tree sapling on " Green sunrise hill", Renery of the campus is maintaining by the student of Zoology and Botany departments. leasts of the greenery and eco-friendly sustainable environment, college campus becomes thre charming, refreshing and healthier. This increases efficiency of every element of the tage.

Atellita I/C Principal Pune Vidyarthi Griha's College of Science & Technology



CERTIFICATE OF ENVIRONMENTAL AUDIT

This is to certify that

Pune Vidyarthi Griha's College of Science & Technology

(Affiliated to University of Mumbai)

Located at CTS No. 218, Br. Nath Pai Nagar, Ghatkopar (E) Mumbai

Has successfully undergone for Environmental Audit to establish Eco-friendly practices for conservation of environment at all stages. The environmental awareness initiatives taken by the college are substantial to meet all the standards for maintaining a sustainable environment in the college premises.



(Term of validity) June, 1" 2023 - May, 31" 2025

Date of Issue: 10th June 2023

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(Dr. Pramod Salaskar) Dharitree Enviro Research Centre



DHARITREE ENVIRO RESEARCH CENTRE

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Pune Vidyarthi Griha's College of Science & Technology

ENVIRONMENTAL AUDIT REPORT

(2023 - 2025)



For Dharitree' Enviro Research Centre

Environmental Audit 2023 - 2



Preface....

Pune Vidyarthi Griha's College of Science & Technology aims at producing awareness about the environment consciousness. The institute takes initiatives to organize different events of green practices to percolate the knowledge amongst students, teachers, and non-teaching staff. This green message being transferred along with its practical dimensions among the families, societies and thereby to the stakeholders, forms a chain and network to spread the message at large. College is also aimed at giving solution to the different burning topics related to the environment, its awareness as well as its protection. As the government is taking initiative to sensitize mass with environment protection, newer concepts are being introduced to make college eco-friendly. To create and conserve the environment within the campus and to solve the environmental problems such as promotion of the energy savings, energy conservation, water reduction, water harvesting, solid waste management, improvement in the air quality of the campus, control on noise pollution, and minimizing the use of Plastic, etc. is one of the prime objective of the college.

Environment audit report is one such initiative that has been introduced to make the educational institute environmentally sustainable and active in spreading the education about the same. It is a tool to assess general practices implemented by the organization in terms of the impact on environment. The report also aims to spread the awareness on the adverse practices that are responsible for the degradation of the environment and how strongly the institute is involved in curtailing those practices. It helps in recognizing the need of a college to work around the year for environment sustainability. Thus, Environment audit forms the base line survey to decide for the green policy.

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Acknowledgement....

We take this opportunity to express our gratitude towards the president of the Institute, Hon. President, Shri. Sunil Redekar and Hon. Secretary of College Development Committee, Dr. Rajendra Kamble, & Hon. Director Shri. Rajendra Borhade and all Hon. Members of the CDC committee of the college for their valuable guidance, continuous encouragement, generous gift of time with constructive critism & suggestion during the composition of work of entire," Environmental Audit Report- 2023-25".

We also express our deep sense of gratitude to our Hon. Principal, Dr Ajay Kumar Pathak, who inspired and encouraged us throughout the work. We gratefully acknowledge the help provided by him on several occasions.

It is right time to express our deep sense of gratitude to our college **Prof. Meena Patel**, **Prof. Jayshri Borhade**, **Prof. Gaurav Singh** for their continuous help, inspiring resoluteness and sensible suggestion without any reservation whenever we approached throughout investigation.

We are thankful to Dr. B.G Kulkarni for his valuable guidance.

We are equally thankful to our colleagues teachers and students of B.Sc CS/B.Sc. IT B.com/ BMS which helps during data collection and identification of plants.

AUAlle

Coordinator, Environmental Audit Report



Principal Message

I express my hearty wishes for success of this publication of 'Environmental Audit 2023-2025'.

Efforts made by our institution and senior college for the protection of environment and biodiversity conservation is really unique, which may become pilot project gives message about to avoid the for coming natural disaster like global warming, land sliding etc. We try to maintain environment eco-friendly through activities like landscaping and plantation, rain water harvesting, solid waste Management, energy conservation,

e-waste management, and paperless technology to minimize the use of paper basically prepare from the plants.

The ultimate aim of our institution to develop youth as fertile probe who understand for their social responsibilities.

I express my hearty wishes for success of this movement of Environmental Audit Report for the new beginning of the conservation from the doorstep of the people.

Our Environmental audit reflects assessment and achievement of vision and mission of the college.

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ENVIRONMENTAL AUDIT REPORT COMMITTEE

Sr.No.	Name	Designation	Committee Role	Signature
1	Dr. Ajay Kumar Pathak	I/C Principal	Coordinator	Awark
2	Dr. Pramod Salaskar	Dharitree Enviro Research Centre	External Auditor	makoka
3	Prof. Meena Patel	Asst. Professor	Internal Auditor	out
4	Prof. Jayshri Borhade	Asst. Professor	Internal Auditor	The Bachade
5	Prof. Gaurav Singh	Asst. Professor	Internal Auditor	1 Cinah-
6	Prof. Archana Bhosale	Asst. Professor	Internal Auditor	A thosale .

(2021 - 2023)

Environmental Audit 2023 - 25



CERTIFICATE OF ENVIRONMENTAL AUDIT

This is to certify that Pune Vidyarthi Griha's College of Science & Technology (Affiliated to University of Mumbal)

Located at CTS No. 218, Br. Nath Pai Nagar, Ghatkopar (E) Mumbai

Has successfully undergone for Environmental Audit to establish Eco-friendly practices for conservation of environment at all stages. The environmental awareness initiatives taken by the college are substantial to meet all the standards for maintaining a sustainable environment in the college premises.

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Date of Issue: 10th June 2023

(Dr. Pramod Salaskar) Dharitree Enviro Research Centre

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History:

An education only can provide, the stability, and one could gain name and fame in the society, an education is a wealth and becomes a treasure to the ones, who do not have money, and to the ones, who have a clever brain and ambitions in mind. "Anath Vidyarthi Griha" came into existence in the year 1909 on May 12th, having the same motto and with the aspiration to educate the poor and destitute needy children. There were many of the students, who used to work hard and some of them would get the charitable offerings from the society, but there was not a home or shelter for them and even a school where they would get an education. Eventually, this task was shouldered idealistically by "Pune Vidyarthi Griha".

The Pune Vidyarthi Griha's College of Science & Technology is affiliated to Mumbai University & managed by Pune Vidyarthi Griha's [PVG] formerly called as "Pune Anath Vidyarthi Griha's". Pune Anath Griha's was established in 1909 Kul guru Dada Saheb Ketkar for imparting school education to the students for weaker section of the society. Initially till 1969 it was called as Pune Ananth Vidyarthi Griha's. Since 1969 it was called as a Pune Vidyarthi Griha's as suggested by the Dr. Nana Saheb Parudekar than editor of Sakal Marathi newspaper published from Pune the beginning has focused on school education & for school Maharashtra Vidyalaya was founded in 1921, Later on realizing the need of higher education institution PVG started higher education institution in Printing technology, Engineering and Management. At present PVG has campuses located at Pune and Nashik & Mumbai where more than 20,000 students take education right from school to higher education.

The Pune Vidyarthi Griha's College of Science & Technology was established in the year 2008. It is Affiliated to University of Mumbai and Recognized by Govt. of Maharashtra in 2008. Initially the permission was granted only for B. Sc. Information Technology & B.Sc. Computer Science Course. Observing the excellence of the college, the University granted the permission to the college to start B.com, BMS & BBI course in the year 2017 – 18.



Location:

Pune Vidyarthi Griha's College of Science & Technology located at CTS No. 218, Br. Nath Pai Nagar, Ghatkopar-E Ghatkopar (East) Mumbai-400077, Maharashtra, India.



Figure. Schematic representation of Vidya Bhavan Campus

Country	India	
State	Maharashtra	
District	Mumbai	
City	Mumbai	
Area	Ghatkopar East	
Elevation	20 meter	
Population	Population (2020): 146056	
	Male Population: 76084 Female Population: 69972	
Area Code	+91-022	
Official Languages	Marathi, English	
College Campus area:	Approximately 9,586.65q. meter	
Perimeter	Approximately 467.3 meter	
Location:	19°04.197'N; 72°54.236'E	

NEED FOR ENVIRONMENT AUDITING:

Environment auditing is the process of identification and determination of the institution's practices in creating awareness and practising the environment friendly measures. Over the period of time over exploitation of resources like energy, water, etc. have resulted in the environmental degradation. It is necessary to check whether our way of living and handling resources is not going to cause detrimental effects in our surroundings. Environment audit Report aims at summarising the college's contribution and its activeness in creating awareness and consciousness in practically applying the environmental friendly measures towards an institute.

GOALS OF ENVIRONMENT AUDIT:

Identification and documentation of environment practices followed by university.

- Identify strength and weakness in environment practices.
- 3. Analyze and suggest solution for problems identified.
- 4. Assess facility of different types of waste management.
- 5. Increase environmental awareness throughout campus
- Identify and assess environmental risk.
- Motivates staff for optimized sustainable use of available resources.

8. The long-term goal of the environmental audit program is to collect baseline data of environmental parameters and resolve environmental issue before they become problem.

OBJECTIVES OF ENVIRONMENT AUDIT:

- To examine the current practices, which can impact on environment such as of resource utilization, waste management etc.
- 2. 2. To identify and analyze significant environmental issues.
- 3. Setup goal, vision, and mission for environment practices in campus.
- 4. Establish and implement Environment Management in various departments.
- 5. Continuous assessment for betterment in performance in environment

BENEFITS OF ENVIRONMENT AUDIT TO EDUCATIONAL INSTITUTIONS:



- It would help to protect the environment in and around the campus.
- Recognize the cost saving methods through waste minimization and energy conservation.
- 3. Empower the organization to frame a better environmental performance.
- It portrays good image of institution through its clean and green campus. Finally, it will help to build positive impression for through green initiatives the upcoming NAAC visit

OBJECTIVE AND SCOPE:

- 1. Environmental education through systematic environmental management approach
- Improving environmental standards
- Benchmarking for environmental protection initiatives
- 4. Sustainable use of natural resource in the campus.
- 5. Financial savings through a reduction in resource use
- 6. Curriculum enrichment through practical experience
- Development of ownership, personal and social responsibility for the College campus and its environment
- 8. Enhancement of College profile
- 9. Developing an environmental ethic and value systems in young people

EXECUTIVE SUMMARY:

An environmental audit is a snapshot in time, in which one assesses campus performance in complying with applicable environmental laws and regulations. Though a helpful benchmark, the audit almost immediately becomes outdated unless there is some mechanism in place to continue the effort of monitoring environmental compliance. This audit report contains observations and recommendations for improvement of environmental consciousness.



Table: Species wise count of trees

Sr. No,	Botanical Name	Local Name	Family	Native/ Introd. / Nt.	Vegeta tion type	No. of individuals plants
1	Aegle marmelas	Bel	Rutaceae	Native	Deciduous	1
2	Annona squamosa	Sitaphal	Annonaceae	Nt	Evergreen	3
3	Artocarpus heterophyllus	Phanus	Moraceae	Native	Evergreen	1
4	Azadirachta indica	Neem	Meliaceae	Native	Evergreen	2
5	Bombax ceiba	Katesavar	Malvaceae	Native	Deciduous	1
6	Carica papaya	Pappayi	Caricaceae	Native	Evergreen	1
7	Cocos nucifera	Naral	Arecaceae	Native	Evergreen	47
8	Delonix regia	Gulmohar	Caesalpiniaceae	Nt	Evergreen	1
9	Dypsis lutescens	Areca palm	Arecaceae	Nt	Evergreen	1
10	Eucalyptus grandis	Neelgiri	Myrtaceae	Nt	Evergreen	3
11	Ficus benghalensis	Vad	Moraceae	Native	Evergreen	1
12	Ficus racemosa	Umber	Moraceae	Native	Evergreen	3
13	Hyophorbe lagenicaulis	Bottle Palm	Arecaceae	Nt	Evergreen	7
14	Mangifera Indica	Amba	Anacardiaceae	Native	Evergreen	4
15	Moringa oleifera	Shevga	Moringaceae	Native	Deciduous	1
16	Murraya koenigii	nigii Kaddi patta Rutaceae	Rutaceae	Native	Deciduous	1
17	Neolamarckia cadamba	Kadamb	Rubiacea	Native	Evergreen	1
18	Peltophorum pterocarpum Plumeria	Sonmohar	Caesalpiniaceae	Introd	Evergreen	3
19	obtusa	Chapha	Apocynaceae	Introd	Evergreen	1
20	Polyalthia Iongifolia	Ashoka	Annonaceae	Native	Evergreen	14
21	Pongamia pinnata	Karanj	Fabaceae	Native	Deciduous	1
22	Tectona grandis	Sagwan	Verbenaceae	Native	Deciduous	18
23	Terminalia catapa	Deshibadam	Combretaceae	Native	Deciduous	6

Pune Vidyarthi Griha's College of Science & Technology Environmental Audit 2023 - 25

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Total



TABLE . FLORAL DIVERSITY (TREE) OBSERVED IN THE COLLEGE CAMPUS

Tree No.	Botanical name	Local Name	Lat./Long (Location)	
1	Terminalia catapa	Deshibadam	19°04.216'N; 72°54.240'E	
2	Polyalthia longifolia	Ashoka	19°04.216'N; 72°54.238'E	
3	Terminalia catapa	Deshibadam	19°04.216'N; 72°54.238'E	
4	Dypsis lutescens	Aareca Palm	19º04.215'N; 72º54.223'E	
5	Polyalthia longifolia	Ashoka	19°04.211'N ; 72°54.234'E	
6	Terminalia catapa L.	Deshibadam	19°04.211'N; 72°54.232'E	
7	Terminalia catapa L.	Deshibadam	19º04.211'N; 72º54.233'E	
8	Polyalthia longifolia	Ashoka	19°04.210'N; 72°54.232'E	
9	Terminalia catapa L.	Deshibadam	19°04.197'N ; 72°54.223'E	
10	Cocos nucifera L.	Naral	19º04.204'N; 72º54.229'E	
11	Tectona grandis	Sagwan	19°04.194'N; 72°54.220'E	
12	Cocos nucifera L.	Naral	19°04.193'N; 72°54.21	
13	Tectona grandis	Sagwan	19°04.193'N ; 72°54.217'E	
14	Cocos nucifera	Naral	19°04.193'N ; 72°54.217'E	
15	Tectona grandis	Sagwan	19°04.192'N; 72°54.223'E	
16	Cocos nucifera	Naral	19°04.193'N ; 72°54.215'E	
17	Tectona grandis	Sagwan	19°04.193'N ; 72°54.217'E	
18	Mangifera Indica L.	Amba	19°04.185'N; 72°54.213'E	
19	Tectona grandis	Sagwan	19°04.185'N; 72°54.213'E	
20	Neolamarckia cadamba	Kadam	19°04.185'N; 72°54.213'E	
21	Cocos nucifera	Naral	19º04.183'N; 72º54.213'E	
22	Cocos nucifera L.	Naral	19º04.183'N; 72º54.216'I	
23	Tectona grandis	Sagwan	19°04.183'N; 72°54.219'E	
24	Cocos nucifera L.	Naral	19º04.183'N; 72º54.212'I	
25	Hyophorbe logenicaulis	Bottle paim	19°04.183'N; 72°54.214'I	
26	Cocos nucifera L.	Naral	19º04.182'N; 72º54.211'	



27	Tectona grandis	Sagwan	19°04.182'N; 72°54.218'E
28	Tectona grandis	Sagwan	19°04.183'N; 72°54.227'E
29	Tectona grandis	Sagwan	19°04.183'N; 72°54.222'E
30	Tectona grandis	Sagwan	19°04.183'N; 72°54.225'E
31	Tectona grandis	Sagwan	19°04.183'N ; 72°54.219'E
32	Polyalthia longifolia	Ashoka	19°04.183'N ; 72°54.214'E
33	Cocos nucifera L.	Naral	19°04.183'N; 72°54.209'E
34	Tectona grandis	Sagwan	19°04.183'N; 72°54.210'E
35	Tectona grandis	Sagwan	19º04.183'N ; 72º54.227'E
36	Cocos nucifera L.	Naral	19°04.183'N; 72°54.227'E
37	Cocos nucifera L	Naral	19°04.183'N; 72°54.227'E
38	Tectona grandis	Sagwan	19°04.182'N; 72°54.218'E
39	Cocos nucifera L.	Naral	19º04.182'N; 72º54.218'E
40	Tectona grandis	Sagwan	19°04.182'N; 72°54.218'E
41	Hyophorbe lagenicaulis	Bottle palm	19°04.182'N; 72°54.218'E
42	Cocos nucifera L.	Naral	19°04.182'N; 72°54.218'E
43	Cocos nucifera L.	Naral	19°04.183'N; 72°54.227'E
44	Polyalthia longifolia	Ashoka	19°04.183'N; 72°54.227'E
45	Cocos nucifera L.	Naral	19°04.183'N; 72°54.227'E
46	Cocos nucifera L.	Naral	19°04.183'N; 72°54.227'E
47	Annona squamosa	Sitphal	19°04.184'N; 72°54.226'E
48	Cocos nucifera L.	Naral	19°04.184'N; 72°54.226'E
49	Ficus racemosa L.	Umber	19°04.184'N; 72°54.221'E
50	Cocos nucifera L.	Naral	19°04.184'N; 72°54.226'E
51			19°04.184'N; 72°54.230'E
52	Tectona grandis	Sagwan 19°04.184'N; 72	
53	Cocos nucifera L.	Naral	19°04.184'N; 72°54.218'E
54	Polyalthia longifolia	Ashoka	19°04.184'N; 72°54.213'E
55	Cocos nucifera L.	Naral	19°04.185'N ; 72°54.207'E
56	Hyophorbe lagenicaulis	Bottle palm	19°04.188'N; 72°54.242'E



57	Tectona grandis	Sagwan	19°04.188'N; 72°54.240'E
58	Terminalia catapa L.	Deshibadam	19°04.185'N ; 72°54.194'E
59	Cocos nucifera L.	Naral	19°04.185'N; 72°54.194'E
60	Polyalthia longifolia	Ashoka	19°04.186'N ; 72°54.194'E
61	Cocos nucifera L.	Naral	19°04.185'N ; 72°54.197'E
62	Hyophorbe lagenicaulis	Bottle palm	19°04.184'N ; 72°54.269'E
63	Cocos nucifera L.	Naral	19°04.184'N; 72°54.269'E
64	Polyalthia longifolia	Ashoka	19°04.184'N; 72°54.271'E
65	Polyalthia longifolia	Ashoka	19°04.184'N; 72°54.276'E
66	Cocos nucifera L.	Naral	19°04.184'N ; 72°54.283'E
67	Mangifera indica L.	Amba	19°04.185'N; 72°54.294'E
68	Cocos nucifera L.	Naral	19°04.185'N; 72°54.194'E
69	Tectona grandis	Sagwan	19°04.185'N ; 72°54.194'E
70	Polyalthia longifolia	Ashoka	19°04.185'N; 72°54.194'E
71	Artocarpus heterophyllus Lamk.	Phanas	19°04.185'N; 72°54.197'E
72	Cocos nucifera L.	Naral	19°04.185'N ; 72°54.195'E
73	Moringa oleifera	Shevga	19°04.185'N; 72°54.199'E
74	Cocos nucifera L.	Naral	19°04.185'N; 72°54.202'E
75	Hyophorbe lagenicaulis	Bottle palm	19°04.185'N; 72°54.204'E
76	Polyalthia longifolia	Ashoka	19°04.185'N ; 72°54.209'E
77	Ficus racemosa L.	Umber	19°04.185'N; 72°54.213'E
78	Cocos nucifera L.	Naral	19º04.185'N; 72º54.218'E
79	Cocos nucifera L.	Naral	19º04.185'N ; 72º54.223'E
80	Delonix regia	Gulmohar	19º04.185'N ; 72º54.225'E
81	Cocos nucifera L.	Naral 19°04.185'N ; 72°54.2	
82	Polyalthia longifolia	Ashoka 19º04.185'N ; 72º54.2	
83	Hyophorbe lagenicaulis	Bottle palm 19°04.185'N ; 72°54	
84	Cocos nucifera L.	Naral	19°04.185'N; 72°54.239'E
85	Cocos nucifera L.	Naral	19°04.185'N; 72°54.241'E
86	Cocos nucifera L.	Naral	19°04.185'N; 72°54.243'E



87	Cocos nucifera L.	Naral	19°04.185'N; 72°54.247'E
88	Cocos nucifera L.	Naral	19°04.182'N; 72°54.247'E
89	Aegle marmelas	Bel	19°04.182'N; 72°54.244'E
90	Cocos nucifera L.	Naral	19°04.182'N; 72°54.240'E
91	Hyophorbe lagenicaulis	Bottle palm	19°04.182'N; 72°54.235'E
92	Murraya koenigii	Kadi Patta	19°04.184'N; 72°54.253'E
93	Peltophorum pterocarpum	Sonmohar	19°04.190'N; 72°54.270'E
94	Bombax ceiba L.	Katesavar	19°04.184'N; 72°54.249'E
95	Cocos nucifera L.	Naral	19°04.184'N; 72°54.241'E
96	Peltophorum pterocarpum	Sonmohar	19°04.192'N; 72°54.267'E
97	Ficus benghalensis L.	Vad	19°04.192'N; 72°54.273'E
98	Azadirachta indica	Neem	19°04.192'N; 72°54.273'E
99	Eucolyptus grandis	Neelgiri	19°04.192'N ; 72°54.273'E
100	Azadirachta indica	Neem	19°04.193'N; 72°54.269'E
101	Plumeria obtusa L	Chapha	19°04.193'N; 72°54.268'E
102	Carica papaya	Pappayi	19°04.192'N ; 72°54.274'E
103	Eucalyptus grandis	Neelgiri	19°04.192'N; 72°54.273'E
104	Eucalyptus grandis	Neelgiri	19°04.192'N; 72°54.273'E
105	Annona squamosa	Sitphal	19°04.189'N; 72°54.255'E
106	Cocos nucifera L.	Naral	19°04.198'N ; 72°54.264'E
107	Tectona grandis	Sagwan	19°04.200'N; 72°54.112'E
108	Cocos nucifera L.	Naral	19°04.202'N; 72°54.243'E
109	Cocos nucifera L.	Naral	19°04.202'N; 72°54.245'E
110	Cocos nucifera L.	Naral	19°04.200'N ; 72°54.206'E
111	Mangifera indica L.	Amba	19°04.200'N; 72°54.203'E
12	Cocos nucifera L	1000A 200'N - 7295	
13	Cocos nucifera L.	Naral	19°04.200'N; 72°54.189'E
14	Cocos nucifera L.	19504 200'N -	
15	Ficus racemosa L.	Umber	19°04.200'N; 72°54.196'E
16	Cocos nucifera L.	Naral	19°04.200'N ; 72°54.184'E

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117	Cocos nucifera L.	Naral	19º04.200'N; 72º54.169'E
118	Cocos nucifera L.	Naral	19°04.206'N; 72°54.282'E
119	Pongamia pinnata	Karanj	19°04.205'N; 72°54.279'E
120	Polyalthia longifolia	Ashoka	19°04.207'N; 72°54.223'E
121	Peltophorum pterocarpum	Sonmohar	19°04.208'N; 72°54.237'E
122	Polyalthia longifolia	Ashoka	19°04.208'N; 72°54.249'E



For Dharitree' Enviro Research Centre Maladez Proprietor



Sr. No.		Scientific Name	Common Name	IUCN Status	IWPA Assessment	Feeding Habit	Dwelling
2	Corvidae	Corvus spiendens	House Crow	Least Concern ver 3.1	Schedule - V	Omnivorous	Status R
		Corvus macrorhynchos	Jungle Crow	Least Concern ver 3.1	-	Omnivorous	R
3	Pycnonotidae	Pycnonotus cafer	Red Vented Bulbul	Least Concern ver 3.1	Schedule - IV	Omnivorous	R
34		Pycnonotus jocosus	Red Whiskered Bulbul	Least Concern ver 3.1	Schedule - IV	Omnivorous	R
5	Meropidae	Merops orientalis	Small Bee Eater	Least Concern ver 3.1	-	Insectivorous	R
6	Halcyonidae	Halcyon smyrnensis	White- throated Kingfisher	Least Concern ver 3.1	Schedule -IV	Piscivorous & Insectivorous	R
7	Columbidae	Streptopelia chinensis	Spotted	Not Assessed	Schedule -IV	Granivorous	R
8		Columba livia	Blue Rock Pigeon	Least Concern ver 3.1	-	Granivorous	R
9	Dicruridae	Dicrurus macrocercus	Black Drongo	Least Concern ver 3.1	Schedule - IV	Omnivorous	R
)10	Sturnidae	Acridotheres tristis	Common Myna	Least Concern ver	Schedule - IV	Omnivorous	R
11	Muscicapidae	Copsychus saularis	Oriental Magpie- Robin	3.1 Least Concern ver 3.1	-	Insectivorous & Herbivorous	R
12	Cuculidae	Centropus sinensis	Greater Coucal	Least Concern ver 3.1	Schedule -IV	Carnivorous	R

Table : Avifaunal diversity observed immediate surroundin

For Dharitree' Enviro Research Centre

Proprietor

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Sr. No.	Common Name	Scientific Name	Family	Status
1	Common Jay	Graphium doson	Papilionidae	с
2	Lime Butterfly	Popilio demoleus	Papilionidae	VC
3	Common Mormon	Papilio polytes	Papilionidae	VC
4	Common Grass Yellow	Eurema hecabe	Pieridae	vc
5	Small Grass Yellow	Eurema brigitta	Pieridae	с
6	Plain Tiger	Danaus chrysippus	Nymphalidae	VC
7	Common Indian Crow	Euploea core	Nymphalidae	vc
8	Common Sailer	Neptis hylas	Nymphalidae	VC

Table: Lepidopteran diversity observed in the College Campus



C: Common ; VC: Very Common

For Diaritree English Research Centre

malaster



AMBIENT AIR STATION

Date Of sampling	16/05/2023	Ar	nalysis Comple	eted On	29/05/2023	
Location of H.V.S.	Aprrox. 50	meter from	Main Gate			
Lateral Distance	50 Meter fr	50 Meter from Main Gate				
Receptor Distance	1.5 Meters	From Grou	nd Level			
Ambient Temperature (°C)	2	9	Humidity (%)	49	
Wind Speed (km/hr)	0	9	Wind Direc	ction (deg ⁰)	W 296	
Instruments Used	R.D.S.(APM (GTI-177)	- 460), F.P.	S.(APM - 550)	, G.P.S.(APM - 411) & Benzene Sampler	
		POLLUTIO	NAL PARAME	TERS		
Parameters	Result	Units	NAAQS Limits	N	lethod	
PM ₁₀	72	µg/m³	100.00	IS 5182 (Part 23):	2006 (RA 2022)	
PM _{2.5}	34	µg/m³	60.00	EPA Quality assurance guidance document 2.12, based on CPCB- 202		
SO ₂	18	µg/m³	80.00	IS 5182 (Part 2): 2001 (RA 2022)		
NO ₂	23	µg/m³	80.00	IS 5182 (Part 6): 2006 (RA 2022)		
Ammonia (NH3)	<20	µg/m³	400.00	CPCB Guidelines For Measurement Of Ambient Air Pollutants Volume-I ,2011		
со	0.92	mg/m ³	04.00	IS 5182 (Part 10)	: 1999 (RA 2019)	
Lead as Pb	<0.1	µg/m³	01.00	EPA compendium 3.5:2012	n method IO	
Benzene (C ₆ H ₆)	< 4	µg/m ³	5.00	IS 5182 (Part 11)	:2006 (RA 2022)	
Arsenic(As)	< 5	ng/m³	6.00	EPA compendium method IO 3.5:2012		
Nickel(Ni)	<5	ng/m³	20.00	EPA compendium method IO 3.5:2012		
Ozone (O3)	13	µg/m ³	180.00	IS 5182 (Part 9): 1974 RA 2019		
Benzo(a)Pyrene	< 0.1	ng/m ³	1.00	IS 5182 (Part 12): 2004 (RA 2019)		

NOTE: 1) The above results relate only to the item tested & the condition prevailing at the time of sampling

2) PM₁₀-Particulate Matter of size < 10 μ m, PM_{2.5}- Particulate Matter of size < 2.5 μ m 3) NAAQS-National Ambient Air Quality Standards

4) Lower Detection Limit (NH₃ <20 μg/m³), (Pb <0.10 μg/m³), (C₃H₆ <4 μg/m³), (As <5 ng/m³), (Ni <5 ng/m³), (Benzo(a)Pyrene < 0.1 ng/m³) For Dharitree Enviro Research Centre

Proprietor²¹

College	
Ghankoper	
(Eset) Mumbal	Ì
\$ 400 CTT.	
**	

Date Of Monitoring : 07.06.2023							
Sampling Location : 50 Meter from Main Gate							
Sr. No.	Time	Noise Levels in dB(A) Leq					
1	8.00 am	46.2					
2	9.00 am	47.8					
3	10.00 am	53.6					
4	11.00 am	56.3					
5	12.00 am	54.9					
6	2.00 pm	51.4					
7	4.00 pm	49.7					
8	6.00 pm	57.1					

AMBIENT NOISE LEVEL MONITORING

Method:-IS:9989-1981 (RA 2001)

NOTE: 1) CPCB Limit During Day time < 55. (Day time shall mean from 6.00 am to 10.00 pm.) 2) CPCB Limit During Night time < 45. (Night time shall mean from 10.00 pm to 6.00 am.)

> For Dharitree Enviro Research Centre Malabee Proprietor

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ANALYSIS TEST REPORT							
Sample Collection Date	01/06/2023	Analysis Completed On	08/06/2023				
Sampling Point	Canteen						
Sample Details	Drinking Water						
Sample Container	PVC Can	Sample Quantity	5000 ml				

	Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
	1	pH	7.4	-	6.5 - 8.5	IS 3025 (Part-11): 2022
	2	Colour	<5	CU	5.0	IS 3025 (Part-4/4): 2021
	3	Odour	Agreeable	-	Agreeable	IS3025 (Part-5):2018:RA 2022
	4	TDS	112	mg/lit	500	IS 3025 (Part-16):2023
	5	Turbidity	<1.0	NTU	1.00	IS 3025 (Part-10): 1984:RA 2022
	6	Ammonia	<0.5	mg/lit	0.5	IS 3025 (Part 34/2.2 & 2.3): 1988:RA 2019
	7	Chlorides as Cl	15.6	mg/lit	250.00	IS 3025 (Part 32/2): 1988: RA 2019
	8	Fluorides as F	0.8	mg/lit	1.0	APHA (24th Edition) 4500 F-D-
	9	Residual Chlorine	<0.2	mg/lit	0.2	IS 3025 (P-26/5):2021
	10	Nitrate as NO3	10.4	mg/lit	45.00	APHA (24th Edition) 4500- NO3-B -
	11	Total Alkalinity as	48.37	mg/lit	200	IS 3025(Part23/8.1):1986: RA
	12	Total Hardness as	58.00	mg/lit	200.00	IS 3025(Part21/5):2009: RA 2019
	13	Sulphate as SO4	3.6	mg/lit	200.00	APHA (24th Edition) 4500 SO4 - E - 2022
	14	Cyanide as CN	< 0.05	mg/lit	0.05	IS 3025 (Part27/sec1/4) :2021
	15	Calcium as Ca	14.43	mg/lit	75.00	IS 3025 (Part40/5):1991: RA 2019
	16	Magnesium as	5.34	mg/lit	30.00	IS 3025 (Part 52-6):2003: RA 2019
	17	Total Chromium	<0.01	mg/lit	0.05	IS 3025 (Part46/6):1994: RA 2019

For Dharlinee Enviro Research Centre malasice Proprietor

Environmental Audit 2023 - 25

SOLID WASTE MANAGEMENT

Aim :-

- 1) Scientific disposal of solid waste
- Protection of human health and environment

Objective:-

- 1) To increase recycling level
- To reduce organic waste in landfills
- 3) To control air, water, soil pollution
- Production of green manure and vermicompost.

Activity / Observation :

Solid waste is separated as dry and wet. Dry waste includes plastic, glass, paper, metals, wood and related product. Wet waste typically refers to organic waste usually generated as canteen waste, plant debris. Dry waste is separated and it is given for its reuse and recycling to the recycler agency to avoid the pollution. Wet waste is also known as organic waste. It is obtain from canteen , fallen leaves , litter, trash etc. produce in this campus if it is not disposed properly it creates air pollution, to avoid this we have implemented solid organic waste management activity, we run it at two level one is decomposition of solid waste through the composting in pit, vermicompost form solid organic manure like vermicompost, production of mushroom from the solid organic agricultural waste which ultimately conversion of Best from Waste, further the best biofertilizer is used for plants of college campus which enhances greenery leads environment clean and fresh.



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ENVIRONMENT AWARENESS PROGRAM



Aim and objective:

- To plan, organize and implement programmes like landscape and plantation, water management & conservation, and rain water harvesting.
- To provide education that prepares students for leadership and social responsibility teaching them to think and communicate effectively and develop a global awareness.
- To introduce environmental education programmes for strengthen the existing ecological and environment related training infrastructure.
- To organize training programmes for vocationalisation of environmental careers.
- To strengthen Global Environmental Education Programmes for standardization of greening activities.
- To introduce environmental education programmes in strengthen the existing ecological and environment related training infrastructure.
- To make special plans for the studies vermiculture, plantation, nursery development, water & energy conservation and management, rain water harvesting and other related fields.
- To provide environmental education that prepares students for leadership and social responsibility by teaching them to think and communicate effectively and develop global environmental awareness and sensitivity.



Ventilation and Indoor Air Quality (IAQ) :

- There is adequate size of windows in college class rooms as well as in corridor which allow sufficient light and ventilation.
- Corridors are wide with good ceiling height
- Classrooms also have high ceiling with wide doors. Windows are kept open to receive sunlight.
- All classrooms are provided with ceiling fans for proper air circulation.

Water Efficiency & Wastewater Management:

- Two RO filtration plant has been installed on main building to provide clean drinking water in campus.
- No water leakage observed anywhere in Campus.
- The students have awareness for water conservation.

Energy Efficiency:

- All the CRT monitors of computers have been replaced with LED monitors.
- Computers are kept switched off when not required to operate.
- Save energy posters/stickers such as "Switch off all electrical equipment's when not required to use" at maximum locations to spread energy conservation awareness.
- All conventional incandescent tube lights are replaced with LED tube lights.

Ambiance and Acoustic Control:

- Tree plantation in and around the campus help in reducing ambient temperature and acoustic control.
- The college is located away from road side so there is no major noise pollution.

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Waste Management:



- Being academic institution, waste paper is the main solid waste generated in the premises. The institution has taken steps to minimize usage of papers by implementing e-notice board.
- Both sides of the pages are utilized to avoid excess paper usages.
- Paper wastes are not directly disposed off in dustbin, it is given to local vendors for recycling and reuse.

e-waste

 The college has taken initiative to segregate and collect e-wastes and stored at designated place for its proper disposal.

Canteen and Solid Waste Management

- Wet and dry wastes are segregated in college canteens and directly handed over to the concern Municipal Corporation for disposal.
- Bio-degradable and non-biodegradable waste is generated labs, are also segregated and disposed of through Municipal Corporation

Summary:

Environment Audit is one of the important tools to check the balance of natural resources and its judicial use. Environment auditing is the process of identifying and determining whether institutional practices are eco-friendly and sustainable. It is a process of regular identification, quantification, documenting, reporting and monitoring of environmentally important components in a specified area. College has conducted a "Environment Audit" in the academic year 2023. The main objective to carry out environment audit is to check the green practices followed by College and to conduct a well-defined audit report to understand whether the Institute is on the track of sustainable development.

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Recommendations:

- CFL lamps can be used in all sections to minimize the usage of fluorescent tubes
- Waste water management still needs to be practiced and designed in the campus.
- Drips and sprinklers can be used for watering the gardens and lawns.
- Roof top rain water harvesting can be designed and constructed.

 Special days like, Teachers Day, Guru poornima, van mahotsav can be celebrated by plant donations.
E-waste segregation, handling and disposal can be deployed at the campus.

PHOTOGALLARY



Rainwater Harvesting Unit



Compost Pit



Compost Pit

Compost Pit

For Dim Pree Englio Research Centre

n alany Proprietor



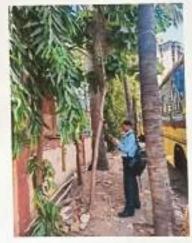
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Fire Extinguishers



Plastic Waste Segregation Bin



Environmental Education program

Systematic Identification and Geo-Tagging of the flora



Sports facilities at premises



Green belt

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Approach Road to college



Green belt in the college premises