

## 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" 2017 - May, 31" 2019

Date of Issue: 4th June 2017

(Dr. Pramod Salaskar) 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
Proprietor

#### **PHOTOGALLARY**







Green belt in the college premises





Fire Extinguishers

Approach Road to College

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

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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 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. 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.

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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 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** 

Allla

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.

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

Pune Vidarthi Griha's College of Science & Technology



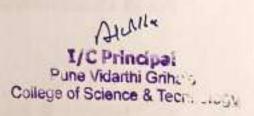
#### **ENVIRONMENTAL AUDIT REPORT COMMITTEE**

(2017 - 2019)

Sr. No.	Name	Designation	Committee Role	Signature
1	Dr. B.G. Kulkarni	Principal	Coordinator	06-
2	Dr. Pramod Salaskar	Dharitree Enviro Research Centre	External Auditor	mabous
3	Prof. Seema Gargote	Asst. Professor	Internal Auditor	Leema.co
4	Prof. Trupti Rongare	Asst. Professor	Internal Auditor	Tronge
5	Prof. Priya Jadhav	Asst. Professor	Internal Auditor	Elina.



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# NEED FOR ENVIRONMENT AUDITING:

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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.
- 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. To identify and analyze significant environmental issues.
- Setup goal, 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

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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
- 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.
- 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
- 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.

> Dulle College of Science \* Technology

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 marmelos	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	
6	Carica papaya	Pappayi	Caricaceae	Native	The second second	1
7	Cocos nucifera	Naral	Arecaceae	Native	Evergreen	1
8	Delonix regia	Gulmohar	Caesalpiniaceae		Evergreen	47
9	Dypsis Jutescens	Areca palm	Arecaceae	Nt Nt	Evergreen 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	Kaddi patta	Rutaceae	Native	Deciduous	1
17	Neolamarckia cadamba	Kadamb	Rubiacea	Native	Evergreen	1
18	Peltopharum pterocarpum	Sonmohar	Caesalpiniaceae	Introd	Evergreen	3
19	Plumeria obtusa	Chapha	Apocynaceae	Introd	Evergreen	1
20	Polyalthia longifolia	Ashoka	Annonaceae	Native	Evergreen	14
21	Pangamia pinnata	Karanj	Fabaceae	Native	Deciduous	1
22	Tectona grandis	Sagwan	Verbenaceae	Native	Deciduous	18

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# Ryldyarthi Griha's College of Science & Technology Environmental Audit 2017- 19

Terminalia	Deshibadam Combretaceae	Native	Deciduous	6
23 catapa			Total	122



rable 2: Avifaunal diversity observed immediate surroundings of the College	Can	npus
roble 2. At	22-170	A

Family Family	Scientific Name	Common Name	IUCN Status	IWPA Assessment	Feeding Habit	Dwelling Status
Corvidae	Corvus splendens	House Crow	Least Concern ver	Schedule - V	Omnivorous	R
pythonotidae	Pycnonotus cafer	Red Vented Bulbul	3.1 Least Concern ver 3.1	Schedule - IV	Omnivorous	R
	Pycnonotus jocosus	Red Whiskered Bulbul	Least Concern ver 3.1	Schedule - IV	Omnivorous	R
Meropidae	Merops orientalis	Small Bee Eater	Least Concern ver 3.1	-	Insectivorous	R
Hakyonidae	Halcyon smyrnensis	White- throated Kingfisher	Least Concern ver 3.1	Schedule -IV	Piscivorous & Insectivorous	R
Columbidae	Columba livia	Blue Rock Pigeon	Least Concern ver 3.1	-	Granivorous	R
Dicruridae	Dicrurus macrocercus	Black Drongo	Least Concern ver	Schedule - IV	Omnivorous	R
Sturnidae	Acridotheres tristis	Common Myna	Least Concern ver	Schedule - IV	Omnivorous	R
Muscicapidae	Copsychus saularis	Oriental Magple- Robin	Least Concern ver 3.1	÷-	Insectivorous & Herbivorous	R
Cuculidae	Centropus sinensis	Greater Coucal	Least Concern ver	Schedule -IV	Carnivorous	R

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AMBIENT AIR STA	14/04/2017	Analysis Completed On	19/04/2017		
cation of H.V.S.	Aprrox. 50 met	er from Main Gate			
eral Distance	60 Meter from	60 Meter from Main Gate			
eptor Distance	1.5 Meters From Ground Level				
7.44	29	Humidity (%)	39		
nperature (°C) nd Speed (km/hr)	07	W 264			
R.D.S.(APM - 460), F.P.S.(APM - 550), G.P.S.(APM - 411) 8 (GTI-177)			411) & Benzene Sam		

		POLLUTION	AL PARAME	TERS
parameters	Result	Units	NAAQS Limits	Method
PM <sub>30</sub>	67	µg/m³	100.00	IS 5182 (Part 23): 2006 (RA 2022)
PM25	36	μg/m³	60.00	EPA Quality assurance guidance document 2.12, based on CPCB-2011
501	23	μg/m³	80.00	IS 5182 (Part 2): 2001 (RA 2022)
NO <sub>2</sub>	19	μg/m³	80.00	IS 5182 (Part 6): 2006 (RA 2022)
Ammonia (NH <sub>3</sub> )	<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 IO 3.5:2012
Benzene (CcHc)	< 4	µg/m³	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 (O <sub>3</sub> )	17	μg/m³	180.00	IS 5182 (Part 9): 1974 RA 2019
Benzo(a)Pyrene	< 0.1	ng/m³	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

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<sup>2)</sup> PM $_{10}$ -Particulate Matter of size < 10  $\mu m$ , PM $_{25}$ - Particulate Matter of size < 2.5  $\mu m$ 

<sup>3)</sup> NAAQS-National Ambient Air Quality Standards

<sup>4)</sup> Lower Detection Limit (NH<sub>2</sub> <20  $\mu$ g/m<sup>3</sup>), (Pb <0.10  $\mu$ g/m<sup>3</sup>), (C<sub>3</sub>H<sub>6</sub> <4  $\mu$ g/m<sup>3</sup>), (As <5 ng/m<sup>3</sup>), (Ni <5 ng/m<sup>3</sup>), (Benzo(a)Pyrene < 0.1 ng/m<sup>3</sup>)



	AMBIENT NOISE L	EVEL MONITORING				
Date Of Monitoring : 26.04.2017						
Sampling Lo	ocation : 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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#### ANALYSIS TEST REPORT

1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	The second second	The same of the same of		
16/04/2017	Analysis Completed On	28/04/2017		
16/04/2017 Analysis Completed On 28/04/2017  Canteen				
Drinking Water				
PVC Can	Sample Quantity	5000 ml		
	Drinking Water	Canteen  Drinking Water		

Sr. No.	Parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
	pH	7.3	25	6.5 - 8.5	IS 3025 (Part-11): 2022
1	Colour	<5	CU	5.0	IS 3025 (Part-4/4): 2021
2	Odour	Agreeable		Agreeable	IS3025 (Part-5):2018:RA 2022
3	TDS	113	mg/lit	500	IS 3025 (Part-16):2023
4	10000	<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
OV.	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- NO <sub>3</sub> -B -
10	Nitrate as NO <sub>3</sub>	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
12	Total Hardness as Sulphate as SO4	2.7	mg/lit	200.00	APHA (24th Edition) 4500 504 - E - 2022
20'	Marie Sangarana	*0.0E	mg/lit	0.05	IS 3025 (Part27/sec1/4) :2021
14	Cyanide as CN	<0.05	mg/lit	75.00	IS 3025 (Part40/5):1991: RA 2019
15	Calcium as Ca	13.6		30.00	IS 3025 (Part 52-6):2003: RA 2019
16	Magnesium as	4.92	mg/lit	0.05	IS 3025 (Part46/6):1994: RA 2019
17	Total Chromium	<0.01	mg/lit	0.05	

#### SOLID WASTE MANAGEMENT

Aim :-

1) Scientific disposal of solid waste

2) Protection of human health and environment

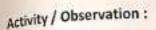
Objective:-

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.



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.

> Authe Pune Vidarthi Griha's College of Science & Technology



## **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.

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

College of Science & Technology

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 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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Date of Issue: 3rd June 2019

(Dr. Pramod Salaskar) Dharitree Enviro Research Centre

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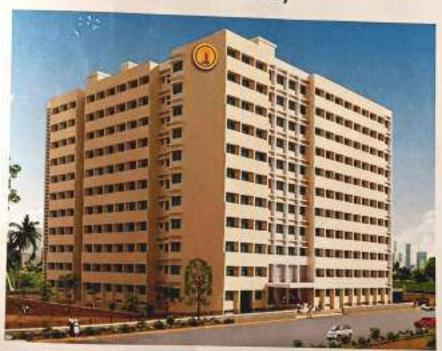
8/1302, Runwal Regency, Opp. to Petrol Pump, Majiwada village Road, Thane (W) -400 601 - India Email : pramodsalaskar.64@gmail.com / powal\_mumbai@yahoo.co.in



Pune Vidyarthi Griha's College of Science & Technology

**ENVIRONMENTAL AUDIT REPORT** 

(2019 - 2021)



For Dharitree Enviro Research Centre

Color Research Centre

Proprietor

### PHOTOGALLARY







Fire Extinguishers

Sports facilities at premises



Green belt around the college premises

I/C Principal
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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 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.

## pune Vidyarthi Griha's College of Science & Technology

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,"

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.

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 Principal
Pune Videnthi Grine's
College of Science & Technology



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.

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. Ajay Kumar Pathak I/C Principal

ne of Science & Technology



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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	mabri	
3	Prof. Meena Patel	Asst. Professor		MPart	
4	Prof. Sadhana Mishra	Asst. Professor	Internal Auditor	SHISHAM	
5	Prof. Gaurav Singh	Asst. Professor		ASTRAID	

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

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.



Figure. Schematic representation of Vidya Bhavan Campus

Country	India
State	Maharashtra
District	Mumbai
City	Mumbai
Area	
Elevation	Ghatkopar East 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

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

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.

I/C Principal
Pune Videnthi Grihe'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 Mumbui)

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.

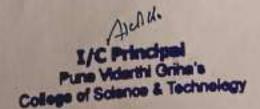


(Term of validity) June, 1" 2019 - May, 31" 2021

Date of Issue: 3rd June 2019

(Dr. Pramod Salaskar) Dharitree Enviro Research Centre

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# NEED FOR ENVIRONMENT AUDITING:

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. To identify and analyze significant environmental issues.
- Setup goal, vision, and mission for environment practices in campus.
- Establish and implement Environment Management in various departments.
- Continuous assessment for betterment in performance in environment

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

## BENEFITS OF ENVIRONMENT AUDIT TO EDUCATIONAL INSTITUTIONS:

- 1. 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.

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

Table: Species wise count of trees

5r. No.	Botanical Name	Local Name	Family	Native/ Introd. / Nt.	Vegeta tion type	No. of individuals plants
_	Aegle marmelas	Bel	Rutaceae	Native	Deciduous	1
1	Annona squamosa	Sitaphal	Annonaceae	Nt	Evergreen	3
3	Artocarpus heterophyllus	Phanus	Moraceae	Native	Evergreen	1
4	Azodirachta 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 Iagenicaulis	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	Kaddi patta	Rutaceae	Native	Deciduous	1
17	Neolamarckia cadamba	Kadamb	Rubiacea	Native	Evergreen	1
18	Peltophorum pterocarpum	Sonmohar	Caesalpiniaceae	Introd	Evergreen	3
19	Plumeria obtusa	Chapha	Apocynaceae	Introd	Evergreen	1
20	Polyalthia Iongifolia	Ashoka	Annonaceae	Native	Evergreen	14
21	Pongamia	Karanj	Fabaceae	Native	Deciduous	1
22	Tectona grandis	Sagwan	Verbenaceae	Native		18
23	Terminalia catapa	Deshibadar	To a second second second	Native	Deciduou	
L					Total	122

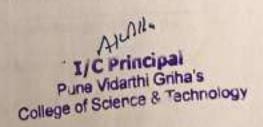
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I/C Principal
Pune Videnthi Griha's
College of Science & Technology

# Pune Vidyarthi Griha's College of Science & Technology

Environmental Audit 2019- 21/

	Table .	2: Avifaunal divers Scientific Name	Common Name	IUCN Status	IWPA Assessment		Status
1	Corvidae	Corvus splendens	House Crow	Least Concern ver 3.1	Schedule - V	Omnivorous	R
2		Corvus macrorhynchas	Jungle Crow	Least Concern ver 3.1		Omnivorous	R
-	pycnonotidae	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
	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 chinensis	Spotted Dove	Not Assessed	Schedule -IV	Granivorous	R
200000		Columba livia	Blue Rock Pigeon	Least Concern ver 3.1		Granivorous	R
	Dicruridae	Dicrurus macrocercus	Black Drongo	Least Concern ver 3.1	Schedule - IV	Omnivorous	R
	Sturnidae	Acridatheres tristis	Common Myna	Least Concern ver 3.1	Schedule - IV	Omnivorous	R
	Muscicapidae	Copsychus saularis	Oriental Magpie- Robin	Least Concern ver 3.1	-	Insectivorous & Herbivorous	R
	Cuculidae	Centropus sinensis	Greater Coucal	Least Concern ver 3.1	Schedule -IV	Carnivorous	R



	00.00	***	TION
IENT	AIR	SIA	FIGURE

MIENT AIR ST		The state of the s			
AMBIENT AIR S	10/05/2019	Analysis Completed On	17/05/2019		
gate Of sampling Location of H.V.S.	Aprrox. 50 meter from Main Gate  80 Meter from Main Gate  1.5 Meters From Ground Level				
Lateral Distance					
Receptor Distance					
	32	Humidity (%)	43		
remperature (°C) wind Speed (km/hr)	08	Wind Direction (deg <sup>0</sup> )	W 267		
Instruments Used	R.D.S.(APM-46 (GTI-177)	- 411) & Benzene Sampler			

		POLLUTION	IAL PARAME	TERS
parameters	Result	Units	NAAQS Limits	Method
	60	μg/m³	100.00	IS 5182 (Part 23): 2006 (RA 2022)
PM <sub>19</sub>	32	μg/m³	60.00	EPA Quality assurance guidance document 2.12, based on CPCB- 2011
	19	µg/m³	80.00	IS 5182 (Part 2): 2001 (RA 2022)
502	17	μg/m³	80.00	IS 5182 (Part 6): 2006 (RA 2022)
NO <sub>2</sub> Ammonia (NH <sub>3</sub> )	<20	μg/m³	400.00	CPCB Guidelines For Measurement Of Ambient Air Pollutants Volume-I ,2011
NEC.	0.86	mg/m³	04.00	IS 5182 (Part 10) : 1999 ( RA 2019)
co Lead as Pb	<0.1	μg/m³	01.00	EPA compendium method IO 3.5:2012
2011 		µg/m³	5.00	IS 5182 (Part 11) :2006 (RA 2022)
Benzene (C <sub>6</sub> H <sub>6</sub> )	< 4			EPA compendium method IO
Arsenic(As)	< 5	ng/m³	6.00	3.5:2012
lickel(Ni)	< 5	ng/m³	20.00	EPA compendium method IO 3.5:2012
mental.	200		180.00	IS 5182 (Part 9): 1974 RA 2019
Dzone (O <sub>3</sub> )	13	μg/m³		IS 5182 (Part 12): 2004 (RA 2019)
enzo(a)Pyrene	e <0.1 ng/m³		1.00	tested & the condition prevailing at the

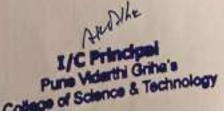
NOTE: 1) The above results relate only to the item tested & the condition pre

PM<sub>10</sub>-Particulate Matter of size < 10 μm, PM<sub>25</sub> - Particulate Matter of size < 2.5 μm</li>
 NAACC Matter Matter of size < 10 μm, PM<sub>25</sub> - Particulate Matter of size < 2.5 μm</li>

3) NAAQS-National Ambient Air Quality Standards

4) Lower Detection Limit (NH<sub>3</sub> <20 μg/m<sup>3</sup>), (Pb <0.10 μg/m<sup>3</sup>), (C<sub>3</sub>H<sub>6</sub> <4 μg/m<sup>3</sup>), (As <5 ng/m<sup>3</sup>), (Ni <5 ng/m<sup>3</sup>). (Ni <5 ng/m<sup>3</sup>), (Benzo(a)Pyrene < 0.1 ng/m<sup>3</sup>)

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	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) Leq
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



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.)

6.00 pm

2) CPCB Limit During Night time < 45. (Night time shall mean from 10.00 pm to 6.00 am.)

57.2

# rune Vidyarthi Griha's College of Science & Technology Environmental Audit 2019- 21

#### ANALYSIS TEST REPORT

sample Collection Date	10/05/2019	Analysis Completed On	24/05/2019
Sample Collect	Canteen		
Sampling Point	Drinking Water		
Sample Details Comple Container	PVC Can	Sample Quantity	5000 ml

parameter	Result	Unit	IS desirable Limit (As per IS 10500)	Method
рН	7.6	- 1	6.5 - 8.5	IS 3025 (Part-11): 2022
Colour	<5	CU	5.0	IS 3025 (Part-4/4): 2021
1200 CC	Agreeable		Agreeable	IS3025 (Part-5):2018:RA 2022
Odout	116	mg/lit	500	IS 3025 (Part-16):2023
TDS	<1.0	NTU	1.00	IS 3025 (Part-10): 1984:RA 2022
Turbidity	<1.0			
Ammonia	<0.5	mg/lit	0.5	15 3025 (Part 34/2.2 & 2.3): 1988:RA 2019
Chlorides as Cl	13.4	mg/lit	250.00	IS 3025 (Part 32/2): 1988: RA 2019
A Line of E	0.6	mg/lit	1.0	APHA (24th Edition) 4500 F - D -
Fluorides as F Residual Chlorine	<0.2	mg/lit	0.2	IS 3025 (P-26/5):2021
Nitrate as NO <sub>3</sub>	11.2	mg/lit	45.00	APHA (24th Edition) 4500- NO <sub>3</sub> -B -
Total Alkalinity as	46.8	mg/lit	200	IS 3025(Part23/8.1):1986: RA
Total Hardness as	54.2	mg/lit	200.00	IS 3025(Part21/5):2009: RA 2019
Sulphate as SO4	2.8	mg/lit	200.00	APHA (24th Edition) 4500 SO4 – E – 2022
and a chi	<0.05	mg/lit	0.05	IS 3025 (Part27/sec1/4):2021
Cyanide as CN	12.4	mg/lit	75.00	IS 3025 (Part40/5):1991; RA 2019
Calcium as Ca	4.60	mg/lit	30.00	IS 3025 (Part 52-6):2003: RA 2019
Magnesium as Total Chromium	<0.01	mg/lit	0.05	IS 3025 (Part46/6):1994: RA 2019

# SOLID WASTE MANAGEMENT

Aim :-

- 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.

AWARE College of Science & Technology

## 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.

Alunk Pune Vidartni Grina's College of Science & Technology

# 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 stones. 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

Pune Vidarthi Griha's College of Science & Technology



# CERTIFICATE OF ENVIRONMENTAL AUDIT

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

Date of Issue: 6th June 2021

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## Pune Vidyarthi Griha's College of Science & Technology

#### **ENVIRONMENTAL AUDIT REPORT**

(2021 - 2023)



For Dharitree Enviro Research Centre

Proprietor

preface....

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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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B.Sc. Cs/B.Sc. IT B.com/ BMS which helps during data collection and identification of plants.

Coordinator, Green Audit Report

# Vidyarthi Griha's College of Science & Technology

# Environmental Audit 2021 - 23

cipal Message....



orts made by our institution and senior college for the protection of environment and odiversity conservation is really unique, which may become pilot project gives message out 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 atter 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 rerrects assessment and achievement of vision and mission of the college.

Dr. Ajay Kumar Pathak Vc Principal



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



# ENVIRONMENTAL AUDIT REPORT COMMITTEE

(2021 - 2023)

No.	Name	Designation	Committee Role	Signature
1	Dr. Ajay Kumar Pathak	I/C Principal	Coordinator	DIOTHE
2	Dr. Pramod Salaskar	Dharitree Enviro Research Centre	External Auditor	molorica
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	Prof. Sita Nadar	Asst. Professor	Internal Auditor	8000
	Prof. Gaurav Singh	Asst. Professor	Internal Auditor	Cisinum
_	Prof. Archana Bhosale	Asst. Professor	Internal Auditor	- Dhrale

# BENEFITS OF ENVIRONMENT 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 savings 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 Vidyarthi Griha's College of Science & Technology Pune Vidyarthi Grit a's College of Science & Technology

Environmental Audit 2021 - 23

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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 geport 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.
- Analyse 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.
- 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. Z. To identify and analyse significant environmental issues.
- Setup goal, 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



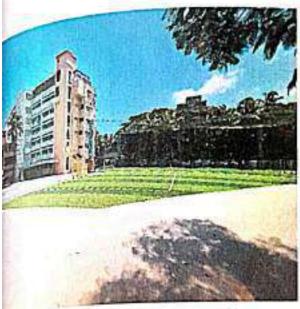
location:

Note 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

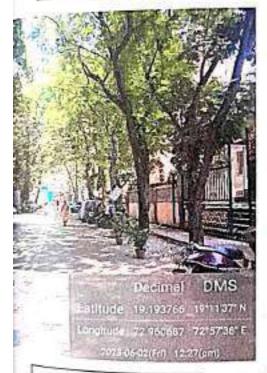
a semi	India	
Country	Maharashtra	
State	Mumbai	
District	Mumbai	
City	Ghatkopar East	
Area	20 meters	
Elevation		
Population	Population (2020): 146056	
	Male Population: 76084 Female Population: 69972	
	101 - 022	
Area Code		
Official Languages	Marathi, English Approximately 9,586.65q.	
College Campus area:	meter 467.3 mete	
The second secon	Approximately 407 19°04.197'N; 72°54.236'E	
Perimeter	19°04.197'N; 72 54.	
Location:		



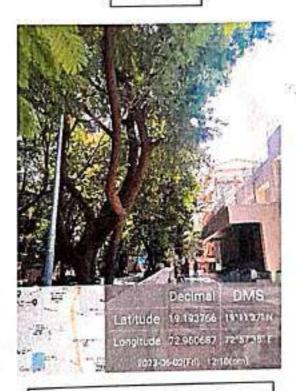
Sports facilities at premises



Green Belt



Approach Road to College



**Green Belt in College Premises** 

For Dharitree Enviro Research Centre

Made

I/C Principal

Pune Vidyarth Ortha's

College of Science Schnology

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arommendations: ator management still needs to be practice to the usage of fluorescent tubes Waste water management still needs to be practiced and designed in the campus.

in the partial sprinklers can be used for watering the gardens and lawns.

in the state of th

,Special days like, Teachers Day, Guru Poornima, van Mahotsav can be celebrated by plant

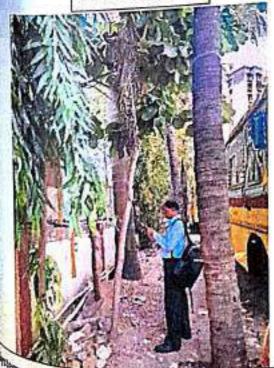
\*E-waste segregation, handling and disposal can be deployed at the campus.

# PHOTO GALLERY





Fire Extinguishers



Imatic Identification and Geo-Tagging of the flora

Plastic Waste Segregation Bin



**Environmental Education program** 





# 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" 2021 - May, 31" 2023

Date of Issue: 6th June 2021

(Dr. Pramod Salaskar) Dharitree Enviro Research Centre

For Dharitree Enviro Research Centre

malooles Proprietor



## 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.)

2) CPC8 Limit During Night time < 45. (Night time shall mean from 10.00 pm to 6.00 am.)

For Dharitree Enviro Research Centre doore

Proprietor

# AMBIENT AIR STATION

	os (os (2023 Analysis Completed -								
pute Of sampling	06/01/2023		Analysis Completed on 13/01/2						
pate Of surf H.V.S.	06/01/2023 Analysis Completed on 13/01/2023 Analysis Completed on 13/01/2023								
lateral Distance	50 Meter from Main Gate								
Distance	1.5 Meters from Ground Level								
Receptor Distance		THE PROPERTY OF THE PROPERTY OF THE PARTY.							
ambient Temperature (°C)		75X	Humidity (%)						
yind Speed (km/hr)	- Leinner	09	20000000	ction (deg <sup>0</sup> )	W 280				
instruments Used	R.D.S. (API (GTI-177)	5. (APM- 460), F.P.S. (APM – 550), G.P.S. (APM – 411) & Benzer 177)							
		POLLUTIO	ONAL PARAME	ETERS					
parameters	Result	Units	NAAQS Limits	, n	Method				
PM1 <sub>2</sub> O	68	μg/m³	100.00	IS 5182 (Part 23): 2006 (RA 2022)					
PM <sub>LS</sub>	33	μg/m³	60.00	EPA Quality assurance guidance document 2.12, based on CPCB- 201					
501	16	μg/m³	80.00	IS 5182 (Part 2): 2001 (RA 2022)					
NO <sub>2</sub>	22	μg/m³	80.00	IS 5182 (Part 6): 2006 (RA 2022)					
Ammonia (NH <sub>3</sub> )	<20	μg/m³	400.00	CPCB Guidelines for Measurement of Ambient Air Pollutants Volume-I ,2011					
to	0.97	mg/m³	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				
lenzene (C <sub>6</sub> H <sub>6</sub> )	<4	μg/m³	5.00	IS 5182 (Part 11)	:2006 (RA 2022)				
Arsenic (As)	< 5	ng/m³	6.00	EPA compendium method IO 3.5:2012					
lickel (Ni)	< 5	ng/m³	20.00	EPA compendium method IO 3.5:2012					
Ozone (O1)	14	μg/m³	180.00	IS 5182 (Part 9):	1974 RA 2019				
Benzo(a)Pyrene	< 0.1	ng/m³	1.00	IS 5182 (Part 12): 2004 (RA 2019)					
TO DECEMBER 1	200 100 1	110000000							

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

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

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time of sampling 2) PM<sub>10</sub>-Particulate Matter of size < 10 μm, PM<sub>25</sub> - Particulate Matter of size < 2.5 μm

<sup>3</sup> NAAQS-National Ambient Air Quality Standards 4) Lower Detection Limit (NH<sub>3</sub> <20 μg/m³), (Pb <0.10 μg/m³), (C<sub>3</sub>H<sub>6</sub> <4 μg/m³), (As <5 ng/m³).

For Dharitree Enviro Research Centre

# Table: Lepidopteran diversity observed in the College Campu

Common Hame	Scientific Hama	Family	Status
Common lay Lone Butterfly	Graphium dason Papilia demoleus	Papitionidae Papitionidae	6
Osmana Osmana	Popilio polytus	Patalionidae	AC AC
Common Espatitivo	Applas albina	Pinerdan	C
Denmon Grass	Eurema hecalae	Vieridae	VC
Small Grass relient	Euremo brigitty	Vieridae	c
ysain toyer	Danaus chrysippus	14/mphalates	1 VC
Common Indian Com	Euplowa core	11/mphalidae	VC
Common Saller	Heptis hylas	18ymphalatae	VC
Oznanou Paurick	Castalias resimon	Lycaenodae	VC

Common, VC. Very Common

"Faxitree Enviro Research Centre

Mapare "

Table 2: Avifaunal diversity observed Immediate surroundings of the College Cambridge

	Scientific Name	Common	IUCN Status	40.00	- Anna	NE P
Family		Name	2000	IWPA Assessment	Feeding Habit	Dwellin Status
Corvidae	Corvus splendens	House Crow	Least Concern ver 3.1	Schedule - V	Omnivorous	R
	Corvus macrorhynchos	Jungle Crow	Least Concern ver 3.1	=	Omnivorous	R
caonatidae	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
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 L'inensis	Spotted	Not Assessed	Schedule -IV	Granivorous	R
	Columba livia	Blue Rock Pigeon	Least Concern ver 3.1	**	Granivorous	R
Leiothrichidae	Turdoides striatus	Jungle Babbler	Least Concern ver 3.1	Schedule -IV	Omnivorous	R
Dicruridae	Dicrurus macrocercus	Black Drongo	Least Concern ver 3.1	Schedule - IV	Omnivorous	R
Sturnidae	Acridotheres tristis	Common	Least Concern ver 3.1	Schedule - IV	Omnivorous	R
Muscicapida	e Copsychus saularis	Oriental Magpie- Robin	Least Concern ver 3.1	\$57/.	Insectivorous & Herbivorous	
Cuculidae	Centropus sinensis	Greater Coucal	Least Concern ver 3.1	Schedule -IV	Carnivorous	R

# Table: Species wise count of trees

			- hories Mise col	count of trees			
5r. NO-	Botanical Name	Local Name	Family	Native/ Introd, / Nt.	Vegeta tion type	individuals	
-	Aegle (ac	Bel	Rutaceae	Hative	Deciduous	1	
•	marmelos Angona	Sitaphal	Annonaceae	Ht	Evergreen	3	
	squamosa	Phanus	Moraceae	Hative	Evergreen	1	
3	heterophyllus Azadirachta	Neem	Meliaceae	Native	Evergreen	2	
4	<sub>indica</sub> <sub>Bombax</sub> ceiba	Katesavar	Malvaceae	Native	Deciduous	1	
5	Bombax cerbo	Pappayi	Caricaceae	Native		1	
6	Carica papaya	Naral	Arecaceae	Native	Evergreen	47	
1	Cocos nucifera	Gulmohar	Caesalpiniaceae	Nt	Evergreen	1	
8	Delonix regia	Elegate Anna Anna Anna Anna Anna Anna Anna Ann			Evergreen	1	
9	Dypsis lutescens	Areca palm	Arecaceae	Nt	Evergreen		
10	Eucalyptus	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	
16	oleifera Murraya	Kaddi patta	Rutaceae	Native	Deciduous	1	
17	koenigii	Kadamb	Rubiacea	Native	Evergreen	1	
18	cadamba	Sonmohar	Caesalpiniaceae	Introd	Evergreen	3	
19	pterocarpum	Chapha	Apocynaceae	Introd	Evergreen	1	
20	obtusa	Ashoka	Annonaceae	Native	Evergreen	14	
2	longifolia		Fabaceae	Native	Deciduous	1	
2	Pinnata	Karanj		Native	Deciduous	18	
L	grandis	Sagwan	Verbenaceae	Native	Deciduous	6	
2	3 Terminalia catapa	Deshibadam	Combretaceae	Monte	Total	122	
All I	0.000.000			(	ATTOMATICAL STREET	AURILY 11	

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

# 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 dusthin, 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.

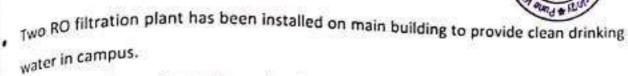
# Canteen and Solid Waste Management

- 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 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.

# Water Efficiency & Wastewater Management:



- 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.

# ENVIRONMENT AWARENESS PROGRAM



# am 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 strengt en 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.

I/C Principal
Pune Vidyarthi Griha 113
College of Science & Tech.....

### 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
4) Production of green manure and vermicompost.

# Activity / Observation:

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 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.

	ANALYSIS TE	ST REPORT	( ) E			
n Date	17/03/2023	Analysis Completed on	10108110/202			
e Collection Date	Canteen	Canteen				
ing Point	Drinking Water					
ple Details	PVC Can	Sample Quantity	5000 ml			

1	parameter parameter	Result	Unit	IS desirable Limit (As per IS 10500) (As	Method
	28	7.4	· *	6.5 - 8.5	IS 3025 (Part-11): 2022
1	DΗ	W.202	CU	5.0	IS 3025 (Part-4/4): 2021
1	Colour	<5	CU	27070	IS3025 (Part-5):2018:RA 2022
	C01001	Agreeable		Agreeable	
3	Odour		mg/lit	500	IS 3025 (Part-16):2023
-	TDS	112		1.00	IS 3025 (Part-10): 1984:RA 2022
		<1,0	NTU	1.00	IS 3025 (Part 34/2.2 & 2.3):
	Turbidity	<0.5	mg/lit	0.5	04 2010
8	Ammonia	<0.5			1988:RA 2019 IS 3025 (Part 32/2): 1988: RA
	Chlorides as CI	15.6	mg/lit	250.00	2010
7				- 2	APHA (24 <sup>th</sup> Edition) 4500 F – D -
		0.8	mg/lit	1.0	us 2025 (P-26/5):2021
1	Fluorides as F	<0.2	mg/lit	0.2	APHA (24th Edition) 4500- NO <sub>3</sub> -B -
9	Residual Chlorine	3.000.01	mg/lit	45.00	10 2025/Part 23/8.1):1986: RA
0	Nitrate as NO <sub>3</sub>	10.4	mg/lit	200	IS 3025(Part21/5):2009: RA 2019
11	Total Alkalinity as	48.37		200.00	APHA (24th Edition) 4500 SO4 – E
12	Total Hardness as	58.00	mg/lit	200.00	7.50 G G G G G G G G G G G G G G G G G G G
13	Sulphate as SO4	3.6	mg/lit	200.02	- 2022 IS 3025 (Part27/sec1/4) :2021
	7,000		-/1:+	0.05	10-+40/51:1991. NO 200
14	Cyanide as CN	<0.05	mg/lit	75.00	- + E7-61/2003. **
15	Calcium as Ca	14.43	mg/lit	30.00	IS 3025 (Part 52-0):1994: RA 2019
15	Magnesium as	5.34	mg/lit	0.05	IS 3025 (Part46/0).255
17	Total Chromium	<0.01	mg/lit	0.05	

For Dharitree Enviro Research Centre

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I/C Principal:

Pune Vidyarthi Griha's

Pune Science & Technology

College of Science &

Vidyarthi Griha's College of Science & Technology

Green Audit 2021 - 23

dnowledgement....



this opportunity to express our gratitude towards the president of the Institute, Hon.

This ident, Shri. Sunil Redekar and Hon. Secretary of College Development Committee

pr. Rajendar Kambale, & Hon. Director Shri. Rajendra Borade and all Hon. Members of the

pr. Rajendar Kambale of the college for their valuable guidance, continuous encouragement,

prerous gift of time with constructive critism & suggestion during the composition of work

prerous gift of time 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's right time to express our deep sense of gratitude to our college Prof. Meena Patel, Irof. Sita Nadar, Prof. Gaurav Singh for their continuous help, inspiring resoluteness and presible suggestion without any reservation whenever we approached throughout investigation.

Weare thankful to Dr. B.G Kulkarni for his valuable guidance.

We are equally thankful to our colleagues' teachers and students of

Est. Cs/B.Sc. IT B.com/ BMS which helps during data collection and identification of plants.

Coordinator, Green Audit Report

"Green" means eco-friendly or not damaging the environment. "Green Auditing". In auditing literature terms are being used interchangeably. To implement the green audit other aspects such as objective of green audit, drivers of green audit, future scope, and advantages are necessary to understand.

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

property of the campus is maintaining by the student of Zoology and Botany departments.

\*\*Large of the greenery and eco-friendly sustainable environment, college campus becomes fore charming, refreshing and healthier. This increases efficiency of every element of surrounding the surrounding the surrounding that is charming, refreshing and healthier. This increases efficiency of every element of the surrounding the surrounding surrounding surrounding surrounding surrounding 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", presery of the campus is maintaining by the student of Zoology and Botany departments.



# 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

(Dr. Pramod Salaskar) 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

Proprietor

## 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.



### 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.

Stalle

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**

(2021 - 2023)

Sr.No.	Name	Designation	Committee Role	Signature
1	Dr. Ajay Kumar Pathak	I/C Principal	Coordinator	Auste
2	Dr. Pramod Salaskar	Dharitree Enviro Research Centre	External Auditor	makakas
3	Prof. Meena Patel	Asst. Professor	Internal Auditor	our
4	Prof. Jayshri Borhade	Asst. Professor	Internal Auditor	TOBookede
5	Prof. Gaurav Singh	Asst. Professor	Internal Auditor	1 Sivar
6	Prof. Archana Bhosale	Asst. Professor	Internal Auditor	A. Mossile.



# 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

(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.

- 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
- Identify and assess environmental risk.
- 7. Motivates staff for optimized sustainable use of available resources.
- 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:

- 1. 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.

# 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 marmelos	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	Kaddi patta	Rutaceae	Native	Deciduous	1
17	Neolamarckia cadamba	Kadamb	Rubiacea	Native	Evergreen	1
18	Peltophorum pterocarpum	Sonmohar	Caesalpiniaceae	Introd	Evergreen	3
19	Plumeria obtusa	Chapha	Apocynaceae	Introd	Evergreen	1
20	Palyalthia 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

Total

122

# 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	19°04.215'N; 72°54.223'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	19°04.211'N; 72°54.233'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	19°04.204'N; 72°54.229'E	
11	Tectona grandis	Sagwan	19°04.194′N; 72°54.220′E	
12	Cocos nucifera L.	Naral	19°04.193'N; 72°54.219'E	
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	19°04.183'N; 72°54.213'E	
22	Cocos nucifera L.	Naral	19°04.183'N; 72°54.216'E	
23	Tectona grandis	Sagwan	19°04.183′N; 72°54.219′E	
24	Cocos nucifera L.	Naral	19°04.183'N; 72°54.212'E	
25	Hyophorbe lagenicaulis	Bottle palm	19°04.183'N; 72°54.214'E	
26	Cocos nucifera L.	Naral	19°04.182'N; 72°54.211'E	

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Tectona grandis

Cocos nucifera L.

Tectona grandis

Cocos nucifera L.

Cocos nucifera L.

Cocos nucifera L.

Cocos nucifera L.

Annona squamosa

Cocos nucifera L.

Ficus racemosa L.

Cocos nucifera L.

Tectona grandis

Cocos nucifera L.

Cocos nucifera L.

Polyalthia longifolia

Hyophorbe lagenicaulis

Annona squamosa

Polyalthia longifolia

Hyophorbe lagenicaulis

19°04.182'N; 72°54.218'E

19°04.182'N; 72°54.218'E

19°04.182'N; 72°54.218'E

19°04.182'N; 72°54.218'E

19°04.182'N; 72°54.218'E

19°04.183'N; 72°54.227'E

19°04.183'N; 72°54.227'E

19°04.183'N; 72°54.227'E

19°04.183'N; 72°54.227'E

19°04.184'N; 72°54.226'E

19°04.184'N; 72°54.226'E

19°04.184'N; 72°54.221'E

19°04.184'N; 72°54.226'E

19°04.184'N; 72°54.230'E

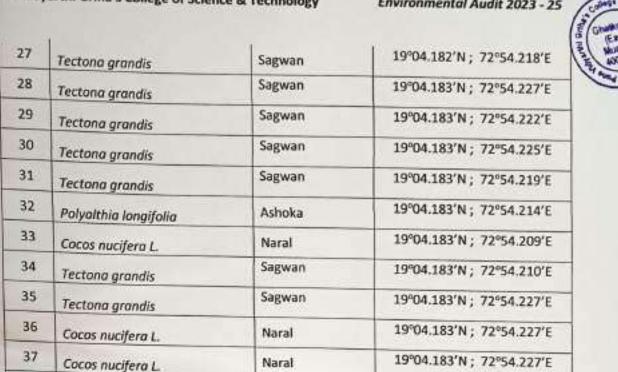
19°04.184'N; 72°54.225'E

19°04.184'N; 72°54.218'E

19°04.184'N; 72°54.213'E

19°04.185'N; 72°54.207'E

19°04.188'N; 72°54.242'E



Sagwan

Sagwan

Naral

Naral

Ashoka

Naral

Naral

Sitphal

Naral

Umber

Naral

Sitphal

Sagwan

Ashoka

Naral

Bottle palm

Naral

Bottle palm

Naral



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	Cocas nucifera L.	Naral	19°04.185′N; 72°54.218′E
79	Cocos nucifera L.	Naral	19°04.185'N; 72°54.223'E
80	Delonix regia	Gulmohar	19°04.185′N; 72°54.225′E
81	Cocos nucifera L.	Naral	19°04.185′N; 72°54.229′E
82	Polyalthia longifolia	Ashoka	19°04.185'N; 72°54.234'E
83	Hyophorbe lagenicaulis	Bottle palm	19°04.185′N; 72°54.237′E
84	Cocos nucifera L.	Naral	19°04.185'N; 72°54.239'E
85	To a process and a second	Naral	19°04.185′N; 72°54.241′E
86	Cocos nucifera L.  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°S4.255'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
112	Cocos nucifera L	Naral	19°04.200'N; 72°54.176'E
113	Cocos nucifera L.	Naral	19°04.200'N; 72°54.189'E
114	Cocos nucifera L	Naral	19°04.200'N; 72°54.192'E
115	Ficus racemosa L.	Umber	19°04.200'N; 72°54.196'E
116	Cocos nucifera L.	Naral	19°04.200'N; 72°54.184'E

# Pune Vidyarthi Griha's College of Science & Technology

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117	Cocos nucifera L.	Naral	19°04.200'N; 72°54.169'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

nalances Proprietor

Sr. No.		Scientific Name	Common Name	IUCN Status	IWPA	Feeding Habit	Dwelling
1	Corvidae	Corvus splendens	House Crow	Least Concern ver 3.1	Assessment Schedule - V	Omnivorous	Status R
2		Corvus macrorhynchas	Jungle Crow	Least Concern ver 3.1	-	Omnivorous	R
3	Pycnonotidae	Pycnonotus cafer	Red Vented Bulbul	Least Concern ver	Schedule - IV	Omnivorous	R
,4		Pycnonotus jocosus	Red Whiskered Bulbul	Least Concern ver	Schedule - IV	Omnivorous	R
5	Meropidae	Merops orientalis	Small Bee Eater	Least Concern ver	-	Insectivorous	R
6	Halcyonidae	Halcyon smyrnensis	White- throated Kingfisher	Least Concern ver 3.1	Schedule -IV	Piscivorous & Insectivorous	5 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
10	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

For Dharitree Enviro Research Centre

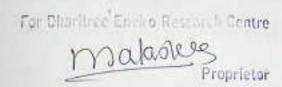
Proprietor

Table: Lepidopteran diversity observed in the College Campus

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



C: Common ; VC: Very Common



#### AMBIENT AIR STATION

		AMBIEN	II AIR STATIC	JN .	12262
Date Of sampling	16/05/2023	3 Analysis Completed On		29/05/2023	
Location of H.V.S.	Aprrox. 50 meter from Main Gate				-
Lateral Distance	50 Meter fr	om Main G	ate		
Receptor Distance	1.5 Meters	From Groun	nd Level		
Ambient Temperature (°C)	2	9	Humidity (	%)	49
Wind Speed (km/hr)	C	9	Wind Direc	ction (deg <sup>0</sup> )	W 296
Instruments Used	R.D.S.(APM (GTI-177)	- 460), F.P.S	S.(APM 550)	, G.P.S.(APM - 411	& Benzene Sample
		POLLUTION	NAL PARAME	TERS	
Parameters	Result	Units	NAAQS Limits	M	lethod
PM <sub>10</sub>	72	μg/m³	100.00	IS 5182 (Part 23):	2006 (RA 2022)
PM <sub>2.5</sub>	34	μg/m³	60.00	EPA Quality assurance guidance document 2.12, based on CPCB- 2	
SO <sub>2</sub>	18	μg/m³	80.00	IS 5182 (Part 2): 2001 (RA 2022)	
NO <sub>2</sub>	23	μg/m³	80.00	IS 5182 (Part 6): 2	2006 (RA 2022)
Ammonia (NH <sub>3</sub> )	<20	μg/m³	400.00		For Measurement ollutants Volume-I
со	0.92	mg/m³	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 <sub>6</sub> H <sub>6</sub> )	< 4	μg/m³	5.00	IS 5182 (Part 11)	:2006 (RA 2022)
Arsenic(As)	< 5	ng/m³	6.00	EPA compendium 3.5:2012	n method IO
Nickel(Ni)	< 5	ng/m³	20.00	EPA compendium 3.5:2012	n method IO
Ozone (O <sub>3</sub> )	13	µg/m³	180.00	IS 5182 (Part 9):	1974 RA 2019

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

1.00

ng/m3

< 0.1

Benzo(a)Pyrene

Proprietor 21

IS 5182 (Part 12): 2004 (RA 2019)

<sup>2)</sup> PM  $_{10}$  -Particulate Matter of size < 10  $\mu m$  , PM  $_{2.5}$  - Particulate Matter of size < 2.5  $\mu m$ 

<sup>3)</sup> NAAQS-National Ambient Air Quality Standards

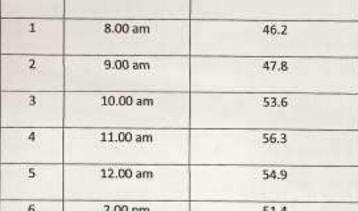
<sup>4)</sup> Lower Detection Limit (NH<sub>3</sub> <20 μg/m³), (Pb <0.10 μg/m³), (C<sub>3</sub>H<sub>6</sub> <4 μg/m³), (As <5 ng/m³), (Ni <5 ng/m³), (Benzo(a)Pyrene < 0.1 ng/m³) For Dharitree Enviro Research Centre

#### AMBIENT NOISE LEVEL MONITORING

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



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.)

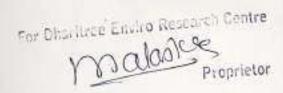
2) CPCB Limit During Night time < 45. (Night time shall mean from 10.00 pm to 6.00 am.)

For Dharltree Enviro Research Centre nalabree.

Proprietor

	ANALYSIS T	EST REPORT	
Sample Collection Date	01/06/2023	Analysis Completed On	08/06/2023
Sampling Point	Canteen		1
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	2	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 NO <sub>3</sub>	10.4	mg/lit	45.00	APHA (24th Edition) 4500- NO <sub>3</sub> -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



#### SOLID WASTE MANAGEMENT

#### Aim :-

- 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, 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.



### **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.

### 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.
- 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.

#### 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 Displace English Research Centre

Many Proprietor





Fire Extinguishers



Plastic Waste Segregation Bin



**Environmental Education program** 

Systematic Identification and Geo-Tagging of the flora



Sports facilities at premises



Green belt







Green belt in the college premises



# M/s Pune Vidyarthi Griha

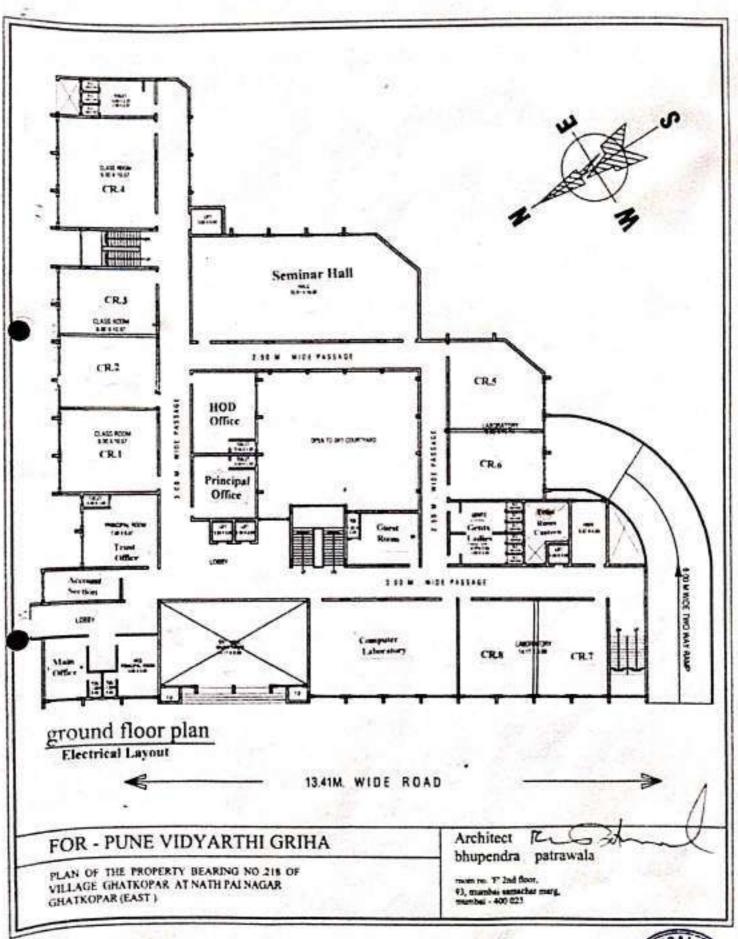
College of Science & Technology
New Collage Building,CTS No.218 Nath Pal Nagar Ghatkopar (E) Mumbai 400077

# **ENERGY AUDIT REPORTS 2023**

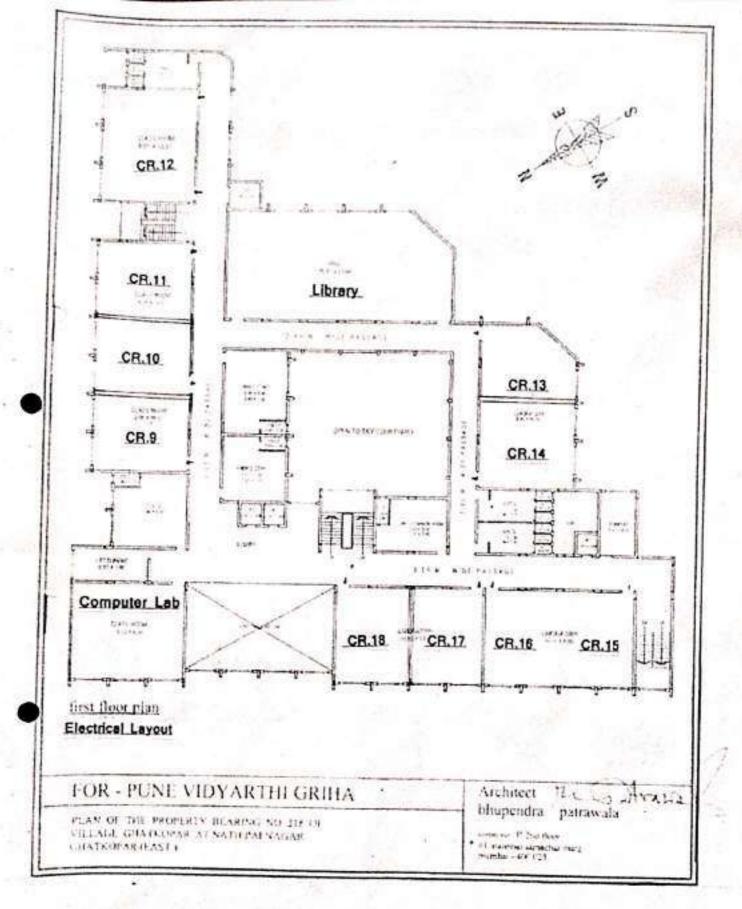


By-













# अशोक इलेक्ट्रीकल कॉर्पोरेशन ASHOK ELECTRICAL CORPORATION

(Government Licenced Electrical Contractor, Engineer & Consultant)

Undertake Installation of L.T. & H.T. Power of Housing & Commercial Complex, Installation of Street Lights & Liaisoning Work of Adami Electricity, M.S.E.D.C.L., Tata Power, B.E.S.T.

Office: 202, Shri Siddhivinayak Adora Co.op. Hsg. Society, Bldg. No. O.B. 9, Hingwala Lane, Pantnagar, Ghatkopar (E), Mumbai - 400075. M: 9820017395 / 9892282900 / 8655616879 • E: agw.9872@gmail.com

### **Electrical work Inspection certificate**

We hereby certify that the electrical installation work at the premises and for the party mentioned above has been carried out by us in full conformity with the Indian Electricity Rules 1956, and the conditions of supply. The particulars of the installation and insulation test results obtained by us are given below. (In case the form is filled up in respect of work of repairing and/ or testing of an existing installation, the above paragraph should specially be modified accordingly.)

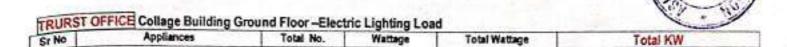
Ref: - Public Service tariff - Account No. 151923385 - Meter No. SML0001419 (A.E.M.Ltd ) 3Ø Meter

MAIN OFFICE Collage Building Ground Floor & First Floor - Electric Lighting Load

Sr No	Appliances	Total No.	Wattage	Total Wattage	Total KW
1	TUBE LIGHTS	11	22	11 x 22 Watts = 220 W	0.22KW
2	FAN Ceiling	09	60	09 x 60 Watts = 540 W	0.54 KW
3	15 AMP SOCKETS	*****			*****
4	Office Computer CPU	3	100	03 x 100 Watts = 300 W	0.30 KW
5	Monitor	3	40	03 x 40 Watts = 120 W	0.12 KW
6	Wi Fi Switch	1	40	01x 40 Watts = 40 W	0.04 KW
7	D Link Socket	1	100	01x 100 Watts = 100 W	0.10KW
8	05 AMP SOCKETS	69	40	69x 40 Watts = 2760W	2.76 KW
	Office Gents Toilet Grd Floor				Total 4, 044 KW
9	TUBE LIGHTS	02	20	02x 20 Watts = 40 W	0.04. KW
10	FAN	1	60	01x 60 Watts = 60 W	0.06.KW
11	05 AMP SOCKETS	1	60	01x 60 Watts = 60 W	0.06.KW
	Office Ladies Toilet Grd Floor			A SHOW THE PARTY OF THE PARTY O	Total 0. 16 KW
12	Tube Light	02	20	01x 40 Watts = 40 W	0.04 KW
13	05 AMP SOCKETS	1	60	01x 60 Watts = 60 W	0.06 KW
	AND THE PROPERTY OF THE PARTY O	To a little of	THE SALE	Total Load	4.304 KW

ACCOUNT SECTION OFFICE Collage Building Ground Floor -Electric Lighting Load

Sr No	Appliances	Total No.	Wattage	Total Wattage	Total KW
14	TUBE LIGHTS	02	22	02 x 22 =44 Watts	0.044KW
15	FAN Ceiling	01	60	01 x60 W = 60 Watts	0.060 KW
16	15 AMP SOCKETS	11	40	11x 40 Watts = 440	0.44 KW
17	Office Computer CPU	1	100	1x 100 Watts	0.10 KW
18	Monitor	3	40	4x 40 Watts = 160	0.60 KW
19	Printers	1	100	1x 100 Watts	0.10 KW
9.1	A STATE STATE OF THE STATE OF T	September 2019	10 Sept 1	TOTAL LOAD	1.254 KW



20	TUBE LIGHTS		20	22	20x 22 = 440	Watta	0	.44 KW	
21	FAN Ceiling		01	60	1x 6 =60 W	atts	0.	060 KW	
22	15 AMP SOCKETS		16	40	16 x 40 Watt	s 640	0	.64 KW	
23	Computer CPU All in 0	One	1	150	1 x 150 W	atts	0	.15 KW	
24	Air Condition	*****	01	2.8KW	1x 28000 W	Vatts	2	.80 KW	
25	TV		01	100	1x 100 Wa	itts	0	.10 KW	
26	Wash Room Gazer		01	3 KW	1 x 3000W =	3 KW	3	.00 KW	
27	Wash Room Light LED	)	02	22	02 x 22 =44 \	a state of the sta	0	.044KW	
28	Wash Room Gazer		03	60	03x 60 = 180			.18 KW	
					Total Lo	ad	7	.41 KW	No.
Class	Room No.1 Ground Floo	or -Elect	tric Lighting Load		The state of the s				
29	Ceiling Fan		6 x 100W	THE CHARLES IN TOLK	tage= 100 Watts			00 Watta	0.60 KW
30	Tube Light		6 x 20 Watts	Total Wat	tage= 120 Watts	1	20 Watts	0.12KW	
31	05 AMP SOCKET		1 No x 100 Watts	100W		10	0 Watts	0.10 KW	
32	Projector		100W x 1	100Watts		10	0 Watts	0.10 KW	
1111	Total Points & KW		TOTAL COMM	S. Section	AND DESIGNATION	9	20 Watts	0.92 KW	120
Class	Room No.2 Ground Flo	or -Flec	tric Lighting Load			-			
33	Ceiling Fan	OI -LIEC	6 x 100W	Total Wat	tage= 100 Watts	1 6	00 Watts	0.60 KW	
34	Tube Light		6 x 20 Watts		tage= 120 Watts		20 Watts	0.12KW	
35	05 AMP SOCKET	_	1 No x 100 Watts	100W	ed a colen colena.	77	0 Watts	0.10 KW	
	Total Points & KW		THE X ICC HELL	1870			20 Watts	0.82 .KW	
C1	1.55 (7.00) (1.50)	-				1 0,	LU IVAUS	0.02 .1111	
	Room No.3 Ground Flo	or-Elec	and the second s	T-1-11W-W	d 00 M/ses	1	00 Watts	0.60 KW	
36	Ceiling Fan		6 x 100W	100 12 200 100	tage= 100 Watts		21.00.21.100.00	2000000000000000	
37	Tube Light		6 x 20 Watts	100000000000000000000000000000000000000	tage= 120 Watts		20 Watts	0.12KW	
38	05 AMP SOCKET		18 No x 100 Watts	1800W		1	800 Watts	1.80 KW	Samuel Co.
	Total Points & KW	577	PURE NORTH	10000		1870 Watts	1.87.KV	N	ASE-137-11
Class	Room No.4 Ground Flo	or -Elec	tric Lighting Load			.111 81			
39	Ceiling Fan		9 x 100W	1.0000000000000000000000000000000000000	tage= 900 Watts	6	00 Watts	0.90 KW	
40	Tube Light		9 x 20 Watts	Total Wat	tage= 180 Watts		80 Watts	0.18 KW	
41	05 AMP SOCKET (Proje	ector)	03 No x 100 Watts	300W		30	0 Watts	0.30 KW	
	Total Points & KW	NO GOOG	A CRIT	1000		13	380 Watts	1.38.KW	
42	Student Gents Toilet		Total No.		Wattage		Total	KW	
43	TUBE LIGHTS		02	20 x 0	2 = 180 Watts		80 Watts	0.18KW	
44	FAN		1	60 x	01= 60 Watts		60 Watts	0.06 KW	
45	05 AMP SOCKETS (Pro	jector)	1	60 x	1 += 60 Watts		60 Watts	0.06 KW	
B. Thir	25		A CONTRACTOR	eliev.	STAND IN	A SECTIO	Tota	1 300 Watts	0.30KV
H.O.D	OFFICE Ground Floor -	Electric	Lighting Load	rivation and	ALIANA MARKANIA MARKA				200000000
46	Ceiling Fan		4 x 100W	Total Wat	tage= 400 Watts		40	0 Watts	0.40 KW
47	Tube Light		4x 20 Watts	Total Wal	tage= 80 Watts	80 Watts	0.80 K	W	
48	05 AMP SOCKET		03 No x 100 Watts	Total Wat	tage = 300W		30	0 Watts	0.30 KW
49	Computer CPU		01 No x 100 Watts	Total Wat	tage = 100W		10	0 Watts	0.10 KW
50	Monitor		01 No x 40 Watts	Total Wat	tage = 40W		4	0 Watts	0.04 KW
51	Printer		01 No x 100 Watts	Total Wat	tage = 100W		10	0 Watts	0.10 KM
52	Tollet Tube Light		01 No x 20 Watts	Total Wat	tage = 20W		10	0 Watts	0.02 KW
53	Toilet 5 Amp Socket		03 No x 100 Watts	Total Wat	tage = 300W		30	0 Watts	0,30 KW
NAME OF THE OWNER, OWNE	Total Points & KW	VI.S.E.	E STEEL STORY	The bear		A SAME	To	tal 2060 Watts	-2.06 KW
			(1)					47.20	
Collago	e Principal Office Ground	Floor							
54	Ceiling Fan	4 x 10	OW	Total Watt	tage= 400 Watts	400 Watts		1	0.40 KW
55	Tube Light	4x 20	No.		tage= 80 Watts	80 Watts			0.80 KW
56	05 AMP SOCKET		x 100 Watts	The second second second	tage = 1900W	1900 Watts			1,30 KW
57	Computer CPU	-	x 100 Wetts		tage = 100W	100 Watts	-		0.10 KW
-50	Monitor		x 40 Watts	100000000000000000000000000000000000000	age = 40W	40 Watta			0.04 KW

01 No x 40 Watts

01 No x 100 Watts

Monitor

Printer



0.04 KW

0.10 KW

40 Watts

100 Watts

Total Wattage = 40W

Total Wattage = 100W

60	Air Condition	01 x 28	00 Watts	Total Wattage = 28000 W	28000Watts	2.8 KW
61	CCTVDVR	04 x 10	W	Total Wattage= 400 Watts	400 Watts	0.40 KW
62	Toilet Tube Light	01 No 1	20 Watts	Total Wattage = 20W	100 Watts	0.02 KV
63	Toilet 5 Amp Socket	03 No 3	100 Watts	Total Wattage = 300W	300 Watts	0.30 KY
	Total Points & KW	1920	42.1		Total	6262 Watts 6.26 KV
	ar Hall Ground Floor					
64	Ceiling Fan		17x 100W	Total Wattage= 1700 Watts	1700 Watts	1.7 KY
65	Tube Light		29x 20W	Total Wattage= 580 Watts	580 Watts	0.58 KY
66	05 AMP SOCKET		14 No x 100 Watts	Total Wattage = 1400W	1400Watts	1.40 KY
67	15 AMP SOCKET		04 No x 200 Watts	Total Wattage = 800 W	800 Watts	0,8 KV
68	Air Condition		06x 2800 Watts	Total Wattage = 16800 W	16800Watts	15.8 KY
69	Acoustic System - Ampli - Speal		01x 120 Watts 06x 20 Watts	Total Wattage = 120 W Total Wattage = 120 W	240Watts	0.24 KV
	Total Points & KW	- 15-	Section 1	ST. STATES	Total 21520 Watts	21.52 KV
	Ground Floor		Sec. DENGO		A 1	
70	Ceiling Fan		05 x 100W	Total Wattage= 500 Watts	500 Watts	0.5 KW
71	Tube Light		06x 20W	Total Wattage= 120 Watts	120 Watts	0.12 KV
72	05 AMP SOCKET		01No x 100 Watts	Total Wattage = 100W	100 Watts	0.1 KV
73	15 AMP SOCKET		18 No x 200 Watts	Total Wattage = 3600 W	3600 Watts	3,6 KV
	Total Points & KW				Total 4320 Watts	4.32 KV
CR-06	Ground Floor			9)		
74	Ceiling Fan		06 x 100W	Total Wattage= 600 Watts	600 Watts	0.6 KV
75	Tube Light		08x 20W	Total Wattage= 160 Watta	160 Watts	0.16 KV
76	05 AMP SOCKET		18No x 100 Watts	Total Wattage = 1800 W	1800 Watts	1.8 KY
77	05 AMP SOCKETS+ (Proje	ctor)	02No x 200 Watts	Total Wattage = 400 W	400 Watts	0.4 KY
alor .	Total Points & KW			1.00	Total 2960 Watts	2.95 KW
CR-07	Ground Floor		000000000000000000000000000000000000000	THE WARRANT TANKS OF THE PARTY	A	
78	Ceiling Fan		09 x 100W	Total Wattage= 900 Watts	900 Watts	0.9 KY
79	Tube Light		07x 20W	Total Wattage= 140 Watts	140 Watts	0.14 KV
80	05 AMP SOCKET		03No x 100 Watts	Total Wattage = 300 Watts	300 Watts	0.3 KY
81	15 AMP SOCKET	- 46	03No x 200 Watts	Total Wattage = 600 Watts	600 Watts	0,6 KY
82	Projector		01 x 100 Watts	Total Wattage = 100 Watts	100 Watts	0.1 KV
	Total Points & KW				Total 2040 Watts	0.2.04 KV
CR-08	Ground Floor		00 -00 <del>0</del> 00X		25	
83	Ceiling Fan		06 x 100W	Total Wattage= 600 Watts	600 Watts	0.6 KW
84	Tube Light		04 x 20W	Total Wattage= 80Watts	80 Watts	0.08 KW
85	05 AMP SOCKETS+ (Project Total Points & KW	ctor)	02 x 200 Watts	Total Wattage = 400 Watts	400 Watts Total 1080 Watts	0.4 KV
FOILE	TS Ground Floor		3 1792-33-5778	THE THE DAY OF THE PARTY OF THE	TOTAL TOUR HALLS	1.00 101
- T	and the same of th					
86	Gents Toilet		02x 20W	Total Wattages 40Watts	40 Watts	0.04 KW
87	Tube Light		OFY TOLL	Total Hetage- Horralis	40 11813	U,U4 KW
88	Ladies Toilet	-	02x 20W	Total Wattage= 40Watts	40 Watts	0.04 KW
89	Tube Light	_	02 x 100 Watts	Total Wattage = 200 Watts	200Watts	0.2 KW
90	05 AMP SOCKET		01 x 100 Watts	Total Wattage = 100 Watts	100 Watts	0.1 KW
91	Sanitary Napkin Machi Total Points & KW	ine	VIX 100 Heas	Town trausgo - 100 Hails	Total 380 Watts	0.38 KW
Contra	en Ground Floor	-			TOTAL SOCIETIES	- Auto Mil
1000	and the second s	- 1	02 x 100W	Total Weltson Strategy	200 Watts	0.2 KW
92	Ceiling Fan		130,000,000	Total Wattage= 200 Watts	3705-037053-14	
93	Tube Light		02 x 20W	Total Wattage= 40Watts	40 Watts	0.04 KW
94	05 AMP SOCKET		06 x 100 Watts	Total Wattage = 600 Watta	600 Watts	0.6 KW
5000	Total Points & KW	Elita (too)	HW. SO COMPANY		Total 840Watts	0.84 KW



Guest Room Ground Floor	Guest Room	Ground Floor
-------------------------	------------	--------------

95	Ceiling Fan	02x 100W	Total Wattage≈ 200 Watts	200 Watts	0.2 KW
96	Tube Light	04x 20W	Total Wattage= 80 Watts	80 Watts	0.08 KW
97	Television Set	1 No x 100 Watts	Total Wattage = 100W	100Watts	0.1 KW
98	Air Condition	01x 1400 Watts	Total Wattage = 1400 W	1400Watts	1.4 KW
	Toilet				
99	Tube Light	01x 20W	Total Wattage= 20 Watts	20 Watts	0.02 KW
101	Geyser	01x3000	Total Wattage= 3000 Watts	3000 Watts	3 KW
102	5 AMP Socket	06x100	Total Wattage= 600 Watta	600 Watts	0.6 KW
	Total Points & KW	THE CHORUSE OF		Total 5400 Watts	5.4 KW

# Computer Laboratory-1 Ground Floor

103	Ceiling Fan	9 x 100W	Total Wattage= 900 Watts	900 Watts	0.9 KW
104	Tube Light	15x 20 Watts	Total Wattage= 300 Watts	300 Watts	0.3 KW
105	OS AMP SOCKET	219 No x 100 Watts	Total Wattage = 21900W	21900 Watts	21.9 KW
106	Computer CPU	65 No x 100 Watts	Total Wattage = 6500W	6500Watts	6.5 KW
107	Monitor	65 No x 40 Watts	Total Wattage = 40W	2600 Watts	2.6 KW
108	Printer	01 No x 100 Watts	Total Wattage = 100W	100 Watts	0.10 KW
109	Air Condition	02 x 2800 Watts	Total Wattage = 5800 W	5600Watts	5.6 KW
110	Projector	01 x 100W	Total Wattage= 100 Watts	100 Watts	0.1 KW
_	Total Points & KW	The state of the s		Total 38000	Watts 38 KW

### Passage & Outdoor Area Ground Floor

111	Lights	32 x 20W 07 x 20W 02 x 50W 02 x 250W	Total Wattage= 540Watts Total Wattage= 140Watts Total Wattage= 100Watts Total Wattage= 500Watts	640 Watts 140 Watts 100 Watts 500 Watts	0.64 KW 0.14 0.1 0.5
112	05 AMP SOCKET	05 x 100 Watts	Total Wattage = 600 Watts	600 Watts	0.6 KW
050_	Total Points & KW	Ball Control		Total 1980Watta	1.98 KW

## Load Summary

1 TO 35	15.498
Sr No 33-35	1.87 KW
Sr No 29-32	0.92 KW
Sr No 20-28	7.41 KW
Sr No 14-19	1.254 KW
Sr No 1-13	4.044 KW

36-63	37.61		
54-63	6.26 KW		
46-53	2. 06 KW		
42-45	0.30 KW		
39-41	1.38 KW		
36-38	1.87 KW		

64-69 21.52 K			
70-73	4. 32 KW		
74-77	2.96 KW		
78-82	0.204KW		
83-85	1.08 KW		
64-85	30.08		

88-91 0.38 KW	
92-94	0.84 KW
95-102	5.4KW
104-110	38.KW
111-113	1.98KW
86-113-	46.6 KW

Sr No. 1 TO 113 TOTAL Load 15.498 + 37.61 + 30.08 + 46.6 = 129.788 KW

The Electrification of the above building we are Submitting Test reports of Insulation Resistance & Earth Resistance test Results. You are requested to please arrange earlier inspection of the electrical installation.

Lighting

Between Phase to Phase\_15\_Mega ohms

Earth Resistance test....0.18 Ohms

Between Phase to Earth \_12 Mega ohms

Remarks- Caption Premises internal Wiring and Supply done buys And All Electrical Safety Taken into Consideration Use the ELCB 125/30 Ma & Earthlings .in D.B Box

All Wiring is In Healthy Condition

### Note;-

The Above Said Electrical Inspection on This Dated 11/04/2023Ok

Certificate Valid for One Year This Certificate Not Valid If Done any Extra unauthorized Wiring & Points or Temp Wiring.



For Ashok Electric Corporation,

M.C.12615 / M.S.30999



# अशोक इलेक्ट्रीकल कॉर्पोरेशन ASHOK ELECTRICAL CORPORATION

(Government Licenced Electrical Contractor, Engineer & Consultant)

Undertake Installation of L.T. & H.T. Power of Housing & Commercial Complex, Installation of Street Lights & Liaisoning Work of Adani Electricity, M.S.E.D.C.L., Tata Power, B.E.S.T.

Office: 202, Shri Siddhivinayak Adora Co.op. Hsg. Society, Bldg. No. O.B. 9, Hingwala Lane, Pantnagar, Ghatkopar (E), Mumbai - 400075. M: 9820017395 / 9892282900 / 8655616879 • E: agw.9872@gmail.com

## Electrical work Inspection certificate

We hereby certify that the electrical installation work at the premises and for the party mentioned above has been carried out by us in full conformity with the Indian Electricity Rules 1956, and the conditions of supply. The particulars of the installation and insulation test results obtained by us are given below. (In case the form is filled up respect of work of repairing and/ or testing of an existing installation, the above paragraph should specially be modified accordingly.)

Ref:- Public Service tariff Account No.151923385 - Meter No SM10042578

Compu	iter Laboratory-2 First F	loor				
1	Ceiling Fan	9 x 100W		Total Wattage= 900 Watta	900 Watts	0.9 KW
2	Tube Light	12 x 20 Watts		Total Wattage= 240 Watts	240 Watts	0.24 KW
3	05 AMP SOCKET	136 No x 100 Watts		Total Wattage = 13600W	13600 Watts	13.6 KW
4	Computer CPU	33 No x 100 Watts		Total Wattage = 3300W	3300Watts	3.3 KW
5	Monitor	33 No x 40 Watts		Total Wattage = 1320W	1320 Watts	1.32 KW
7	Air Condition	02 x 2800 Watts		Total Wattage = 5600 W	5600Watts	5.6 KW
8	Projector	01 x 100W		Total Wattage= 100 Watts	100 Watts	0,1 KW
1-8	Total Points & KW				Total 25060 Watts	25.08 KW
Station	ary room First Floor					T-25
9	Ceiling Fan	02 x 100V	٧.	Total Wattage= 200 Watts	200 Watts	0.2 KW
10	Tube Light	04 x 20W	0	Total Wattage= 80Watts	80 Watts	0.08 KW
11	05 AMP SOCKET	02 x 100 V	Watts	Total Wattage = 200 Watts	200 Watts	0.2 KW
-11	Total Points & KW				Total 840Watts	0.48 KW
CR-09	First Floor	1121-2322				
12	Ceiling Fan	05 x 100V	٧	Total Wattage= 600 Watts	600 Watts	0.6 KW
13	Tube Light	08 No x 2	OW	Total Wattage= 160 W	160 Watts	0.16 KW
14	15 AMP SOCKET	02 x 200 V	Natts	Total Wattage = 400 Watta	400 Watts	0,4 KW
12-14	Total Points & KW				Total 960Watte	0.95 KW
CR-10	First Floor				W	
15	Ceiling Fan	06 x 100W	٧	Total Wattage= 600 Watts	600 Watts	0.8 KW
16	Tube Light	08 No x 2	OW	Total Wattage= 160 W	160 Watte	0.16 KW
17	05 AMP SOCKET	02 x 100 V	Watts	Total Wattage = 200 Watts	200 Watts	0.2 KW
15-17	Total Points & KW				Total 760Watts	0.76 KW
CR-11	First Floor	12000 00 000000				
18	Ceiling Fan 06 x		٧.	Total Wattage= 600 Watts	600 Watts	0.6 KW
19	Tube Light	08 No x 2	OW	Total Wattage= 160 W	160 Watts	0.16 KW
20	05 AMP SOCKET 02 x 100 W		Watts.	Total Wattage = 200 Watts	200 Watts	0.2 KW
18-20	Total Points & KW				Total 760Watta	0.75 KW



CR-12	First Floor				
22	Ceiling Fan	09x 100W	Total Wattage= 900 Watts	900 Watts	0,9 KW
23	Tube Light	12x 20W	Total Wattage= 240 Watta	240 Watts	0.24 KW
2000	15 AMP SOCKET	03 No x 200 Watts	Total Wattage = 600 W	600 Watts	0.6 KW
21-23	Total Points & KW			Total 4320 Watts	1.74 KW
Library	First Floor		I para tana tana tana tana tana tana tana t		
24	Ceiling Fan	18 x 100W	Total Wattage= 1800 Watts	1800 Watts	1.8 KW
25	Tube Light	24x 20W	Total Wattage= 480 Watta	480 Watts	0.48 KW
26	05 AMP SOCKET	20No x 100 Watts	Total Wattage = 2000 Watts	2000 Watts	2 KW
24-26	Total Points & KW			Total 4320 Watts	4.28 KW
CR-13	First Floor				.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
41	Ceiling Fan	09x 100W	Total Wattage= 900 Watts	900 Watts	0.9 KW
28	Tube Light	12x 20W	Total Wattage= 240 Watts	240 Watts	0.24 KW
29	15 AMP SOCKET	03 No x 200 Watts	Total Wattage = 600 W	600 Watts	0.6 KW
27-29	Total Points & KW	- I Drywyddiadau		Total 4320 Watts	1.74 KW
CR-14	First Floor				7,000
20	Ceiling Fan	09 x 100W	Total Wattage= 900 Watts	900 Watts	0.9 KW
31	Tube Light	12x 20W	Total Wattage= 240 Watts	240 Watts	0.24 KW
32	15 AMP SOCKET	03No x 200 Watts	Total Wattage = 600 Watts	600 Watts	0.6 KW
20-32	Total Points & KW	The state of the s	1.500.110000000000000000000000000000000	Total 4320 Watts	1.74 KW
CR-15	First Floor			1000 4020 11000	127 4 1641
33	Ceiling Fan	06 x 100W	Total Wattage= 600 Watts	600 Watts	0.6 KW
34	Tube Light	08 No x 20W	Total Wattage= 160 W	160 Watts	0.16 KW
35	15 AMP SOCKET	02 x 200 Watts	Total Wattage = 400 Watts	400 Watts	0.4 KW
33-35	Total Points & KW		Transport To Held	Total 950Watts	0.96 KW
CR-16	First Floor			Total Sourceus	U.90 P.VI
36	Ceiling Fan	06 x 100W	Total Wattage= 600 Watts	600 Watts	0.6 KW
37	Tube Light	08 No x 20W	Total Wattage= 160 W	160 Watts	0.16 KW
38	15 AMP SOCKET	02 x 200 Watts	Total Wattage = 400 Watts	400 Watts	0.16 KW
36-38	Total Points & KW	100000000	Town Tracage - 400 Traca	Total 960Watts	SULTER STATE
CR-17	First Floor			Total Poorvatus	0,96 KW
39	Ceiling Fan	08 x 100W	Total Wattage= 600 Watta	600 Watts	0.0.100
40	Tube Light	08 No x 20W	Total Wattage= 160 W	160 Watts	0.6 KW
41	15 AMP SOCKET	02 x 200 Watts	Total Wattage = 400 Watts		0.16 KW
39-41	Total Points & KW	OE A EGO HIGHS	Total Hattage - 400 Hatts	400 Watts	0.4 KW
-	First Floor			Total 960Watts	0.96 KW
42		06 x 100W	Total Wattage= 600 Watta		-
43	Ceiling Fan Tube Light	08 No x 20W	Total Wattage= 160 W	600 Watts	0.6 KW
44	15 AMP SOCKET	02 x 200 Watts		160 Watts	0.16 KW
42-44	Total Points & KW	V2 X 200 11803	Total Wattage = 400 Watts	400 Watts	0.4 KW
42-44	TOWN PORTS & KM	200		Total 960Watts	0.96 KW
TOILET	S First Floor				
45	Tube Light	01x 20W	Total Wattage= 20Watts	20 Watts	0.02 KW
45	05 AMP SOCKET	01 x 100 Watts	Total Wattage = 100 Watta	100Watts	0.1 KW
45-46	Total Points & KW			Total 380 Watts	0.12 KW
Commo	on Boys room First Floor				with the same
47	Ceiling Fan	04 x 100W	Total Wattage= 400 Watts	400 Watts	0.4 KW
48	Tube Light	08 x 20W	Total Wattage= 160 Watta	160 Watts	0.16 KW
47-48	Total Points & KW			Total 4320 Watts	0.56 KW



Comm	on Girls room First Floor				
37	Ceiling Fan	04 x 100W	Total Wattage* 400 Watts	400 Watts	0.4 KW
50	Tube Light	08 x 20W	Total Wattage= 150 Watts	160 Watte	0.16 KW
49-50	Total Points & KW			Total 4320 Watts	0.54 KW
Exam	sectionFirst Floor				
51	Ceiling Fan	04 x 100W	Total Wattage=400 Watts	400 Watts	0.4 KW
52	Tube Light	07 x 20W	Total Wattage= 140Watts	140 Watts	0.14 KW
53	05 AMP SOCKET	15 x 100 Watts	Total Wattage = 1500 Watta	1500 Watta	1.5 KW
54	Computer CPU	04 No x 100 Watts	Total Wattage = 400W	400Watts	0.4 KW
55	Monitor	04 No x 40 Watts	Total Wattage = 160W	400Watts	0.16KW
56	Printer	01 No x 100 Watts	Total Wattage = 100W	100 Watts	0.10 KW
57	Xerox Machine	01 No x 1500 Watts	Total Wattage = 1500W	1500 Watts	1.5 KW
51-57	Total Points & KW			Total 4200Watts	4.2 KW
Comp	ter Library First Floor				
58	Computer CPU	09 No x 100 Watts	Total Wattage = 900W	900Watts	0.9 KW
59	Monitor	04 No x 40 Watts	Total Wattage = 160W	160Watts	0.16 KW
50	Printer	01 No x 100 Watts	Total Wattage = 100W	100 Watts	0.10 KW
8-60	Total Points & KW		19.30.1.57 Care \$ 0.31 C Core 19	Total 2060 Watts	2.06 KW
Electro	onics Library First Floor				
61	Ceiling Fan	06No x 100 Watts	Total Wattage = 800W	600Watts	0,6 KW
62	Tube Light	08 No x 20W	Total Wattage= 160 W	160 Watts	0.16 KW
63	15 AMP SOCKET	01 No x 200 Watts	Total Wattage =200 W	200 Watts	0.2 KW
61-63	Total Points & KW			Total 950Watts	0.95 KW
TOILE	TS First Floor Gents Toilet				7.3.4.1.112
64	Tube Light	02x 20W	Total Wattage= 40Watts	40 Watts	0.04 KW
65	05 AMP SOCKET	01 x 100 Watts	Total Wattage = 100 Watta	100Watts	0.1KW
66	Ladies Toilet		3331313131	111111111	2.11.11
67	Tube Light	02x 20W	Total Wattage= 40Watts	40 Watts	0,04 KW
68	05 AMP SOCKET	01x 100 Watts	Total Wattage = 100 Watts	100Watts	0.1 KW
64-68	Total Points & KW			Total 640 Watts	0.64 KW
Gymkh	ana First Floor				
69	Ceiling Fan	12 x 100W	Total Wattage= 1200 Watts	1200 Watts	1.2 KW
70	Tube Light	15 x 20W	Total Wattage= 320 Watts	320 Watts	0.32 KW
1	15 AMP SOCKET	04No x 200 Watts	Total Wattage = 800 Watta	800 Watts	0.8 KW
69-71	Total Points & KW			Total 2320 Watts	2.32 KW
100000	oom First Floor			1001 2020 11023	2.02 (1)1
72	Ceiling Fan	03x 100W	Total Wattage= 300 Watts	300 Watts	0.3 KW
73	Tube Light	04 x 20W	Total Wattage= 80 Watts	80Watts	-
74	05 AMP SOCKET	03No x 100 Watts	Total Wattage = 300 Watts		0.08 KW
72-74	Total Points & KW	3,000,000,000	Total Hallago - 500 Halla	300 Watts	0.3 KW
	ge & Outdoor Area First Flo	or		Total 680 Watts	0.88 KW
75	Tube Light	13x 20W	Total Wattenan 200 M. H.		-
76	15 AMP SOCKET	02 x 200 Watts	Total Wattage= 260 Watts	260Watts	0.26 KW
77	05 AMP SOCKET	05 x 100 Watts	Total Wattage = 400 Watts	400 Watts	0.4KW
78	Water cooler		Total Wattage = 500 Watta	500 Watts	0,5 KW
75-78	Total Points & KW	01 x 600	Total Wattage = 600 Watts	600 Watts	0.6 KW
12-10	Total Forma Street			Total 1980Watts	1.76 KW



### **Load Summary**

1-23	30.3 KW
Sr No 21-23	1.74 KW
Sr No 18-20	0.76 KW
S No 15-17	0.75 KW
Sr No 12-14	0.98 KW
Sr No 09-11	0.48 KW
Sr No 1-08	25.06 KW

24-38	9.68
36-38	0.96 KW
33-35	0.96 KW
30-32	1.74 KW
27-29	1.74 KW
24-26	4.28 KW

39-50	2.29KW
49-50	0,56 KW
47-48	0.56 KW
45-46	0.12 KW
42-44	0.95 KW
39-41	0.90 KW

and the same	4.0.400
51-57	4.2 KW
58-60	2.08 KW
61-63	0.95 KW
64-68	0.64 KW
69-71	2.32 KW
72-74	0.68 KW
75-78	1.76 KW
51-78-	12.62KW

Sr No. 1 TO 67 TOTAL Load 30.3 + 09.68 + 2.29 + 12.62 = Total Sr Load - 54.89. KW

Sr.	Floor	Total KW Load	
1	Ground Floor & First Floor	129.788 KW	
3	Ground Floor & Hall	54.89. KW	
4	Water Pump		10. H P
5.	Normal Fire Fighting	Total Motor Load	80 HP
nei i	TOTAL- College Building Load	184.67 KW	Total HP - 90 HP

The Electrification of the above building we are Submitting Test reports of Insulation Resistance & Earth Resistance test Results. You are requested to please arrange earlier inspection of the electrical installation.

Lighting
Between Phase to Phase\_15\_Mega ohms

Earth Resistance test....0.18 Ohms
Between Phase to Earth 12 Mega ohms

Remarks- Caption Premises Internal Wiring and Supply done buys And All Electrical Safety Taken into Consideration Use the ELCB 125/30 Ma & Earthlings .in D.B Box All Wiring is In Healthy Condition

Note;-

The Above Said Electrical Inspection on This Dated 11/04/2023Ok

Certificate Valid for One Year This Certificate Not Valid If Done any Extra unauthorized Wiring & Points or Temp

Wiring.

You Faithfully

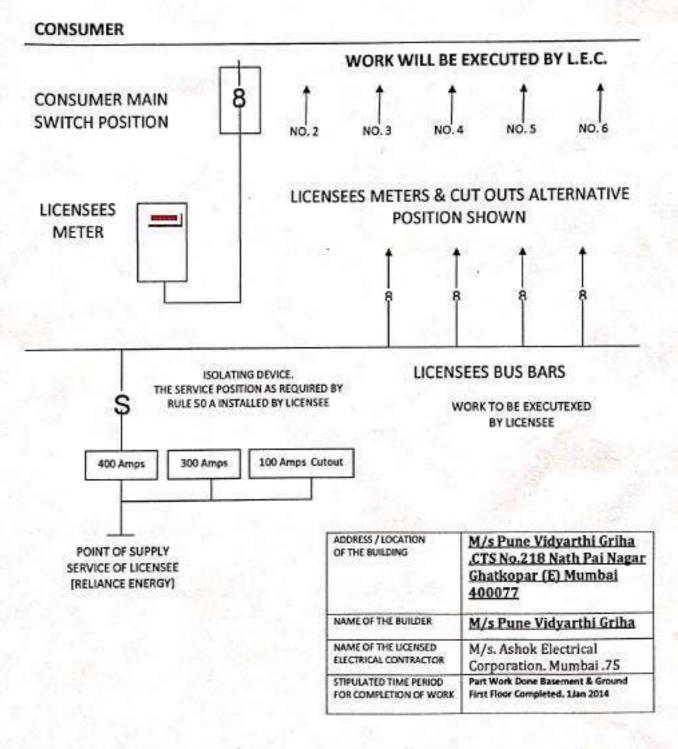
TRICAL GORPORAL

For Ashok Electric Corporation,

Proprietor

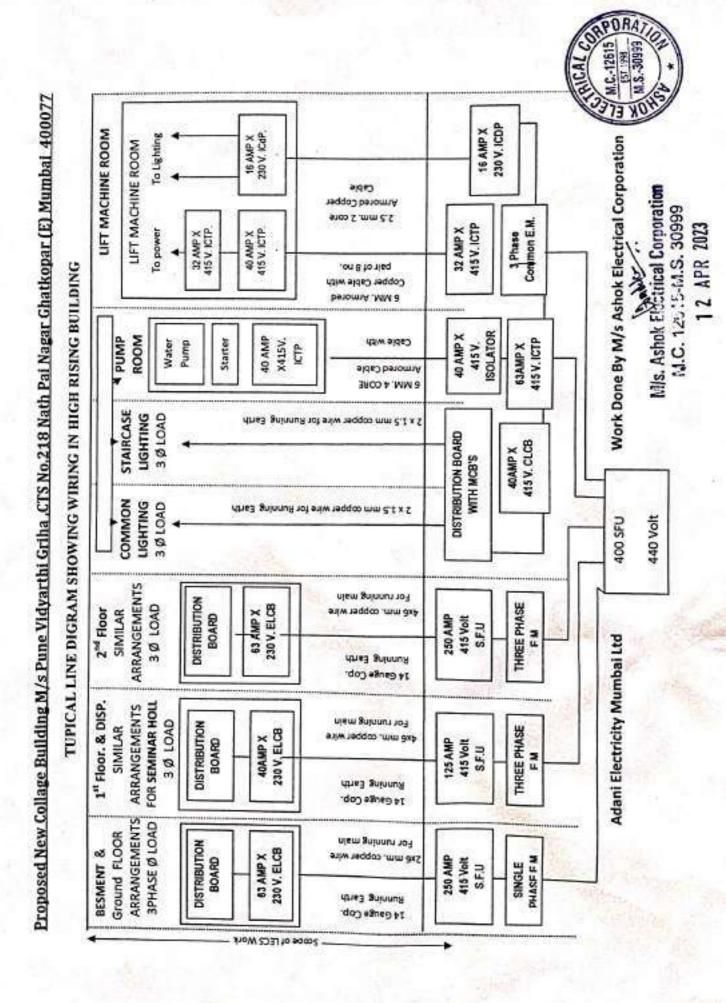
M.C.12615 / M.S.30999

# TYPICAL ARRANGEMENT FOR SUPPLY OF ENERGY TO MULTI – STOREYED C OLLAGE BUILDING



M/s. Ashok Electrical Corperation M.C. 12015-M.S. 30999





### **PUNE VIDYARTHI GRIHA's**



## **COLLEGE OF SCIENCE & TECHNOLOGY**

Affiliated to University of Mumbai

CTS. NO.218, Br. Nath Pai Nagar, Ghatkopar (East), Mumbai - 400077. Tel: 2506 9118

Email: pvgcst@yahoo.com Website: www.pvgcst.in.



The term "Green" means eco-friendly or not damaging the environment

The college has set up environmental committee to give guideline measures an implementation of various aspects of green initiatives.

## Policy for Green environment:

## 1) Awareness Programs

To conduct awareness programs regarding environment Sustenance and maintenance in the form of lectures, celebration environmental policy of college. To train non-teaching and housekeeping staff to develop skills of handling separation of waste in campus.

### 2) Waste Management Implementation practices:

- a) To provide different colour waste bins for waste separation.
- b) Regular disposal of E-waste and solid waste.
- c) Avoid purchase of single use disposable items.

### 3) Campaign

- a) The college has established a green campus environmental ethic awareness.
- b) Organized awareness programs for the student's faculty and society

### Policy on Energy audit

- Activate power management features on your computer and monitors so that it will go into low power sleep mode when you are not working on it.
- Turn off your monitor when you leave your table.
- Whenever possible shut down rather than logging off.
- Turn off unnecessary lights and use day light instead.
- Use LED or compact fluorescent bulbs.
- keep lights off in your conference rooms, classrooms, lecture halls when they are not in use

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<sup>st</sup> 2017 - May, 31<sup>st</sup> 2019

Date of Issue: 4th June 2017



## CERTIFICATE OF GREEN 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 conducted detailed Green Audit of their college and has submitted necessary data and credentials for scrutiny.

The activities and measures carried out by the college have been verified based on the report submitted and was found to be satisfactory.



(Term of validity)
June, 1<sup>st</sup> 2017 - May, 31<sup>st</sup> 2019

Date of Issue: 4th June 2017



# CERTIFICATE OF ENVIRONMENTAL AUDIT

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(Term of validity)
June, 1<sup>st</sup> 2019 - May, 31<sup>st</sup> 2021

Date of Issue: 3rd June 2019



# CERTIFICATE OF GREEN 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

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

Date of Issue: 3rd June 2019



# CERTIFICATE OF ENVIRONMENTAL AUDIT

This is to certify that

Pune Vidyarthi Griha's College of Science & Technology

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(Term of validity)
June, 1<sup>st</sup> 2021 - May, 31<sup>st</sup> 2023

Date of Issue: 6th June 2021



# CERTIFICATE OF GREEN 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 conducted detailed Green Audit of their college and has submitted necessary data and credentials for scrutiny.

The activities and measures carried out by the college have been verified based on the report submitted and was found to be satisfactory.



(Term of validity)
June, 1<sup>st</sup> 2021 - May, 31<sup>st</sup> 2023

Date of Issue: 6th June 2021



## CERTIFICATE OF GREEN 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

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The activities and measures carried out by the college have been verified based on the report submitted and was found to be satisfactory.



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

Date of Issue: 4th June 2017



Mob: +91-9969410612 +91-9967002502

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



## Pune Vidyarthi Griha's College of Science & Technology

## GREEN AUDIT REPORT

(2017 - 2019)



For Dharitree Enviro Research Centre

Malasker

preface....

The term "Green" means eco-friendly or not damaging the environment. "Green Auditing" an umbrella term, is known by another name "Environmental Auditing". In auditing literature both the terms are being used interchangeably. To implement the green audit other important aspects such as objective of green audit, drivers of green audit, future scope, benefits, and advantages are necessary to understand.

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

With keeping this view our campus is clean and fresh, we try to inculcate value of surrounding environment amongst the students through Environmental awareness activities like nature dub, NSS", Quiz competition on environment,

Hower Arrangement, Gardening development and nursery management course, Production of vermicomposting from solid waste and activity like Competition on Preparation of "Best from Waste", preparation of trenches and plantation of tree sapling on the campus is maintaining by the student of College.

Because of the greenery and eco-friendly sustainable environment, college campus becomes more charming, refreshing and healthier. This increases efficiency of every element of the college.

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

<sub>Acknowledgement....</sub>

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. gajendar 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," Green 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 collection and identification of plants.

Coordinator, Green Audit Report

> Pune Vidarthi Grina's College of Science & Technology

## GREEN AUDIT REPORT COMMITTEE (2017 – 2019)



Sr. No.	Name	Designation	Committee Role	Signature
1	Dr. B.G. Kulkarni	Principal	Coordinator	a.
2	Dr. Pramod Salaskar	Dharitree Enviro Research Centre	External Auditor	malon
3	Prof. Seema Gargote	Asst. Professor	Internal Auditor	Seemal
4	Prof. Trupti Rongare	Asst. Professor	Internal Auditor	1.vorg
5	Prof. Priya Jadhav	Asst. Professor	Internal Auditor	The same

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

principal Message....

lexpress my hearty wishes for success of this publication of 'Green 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

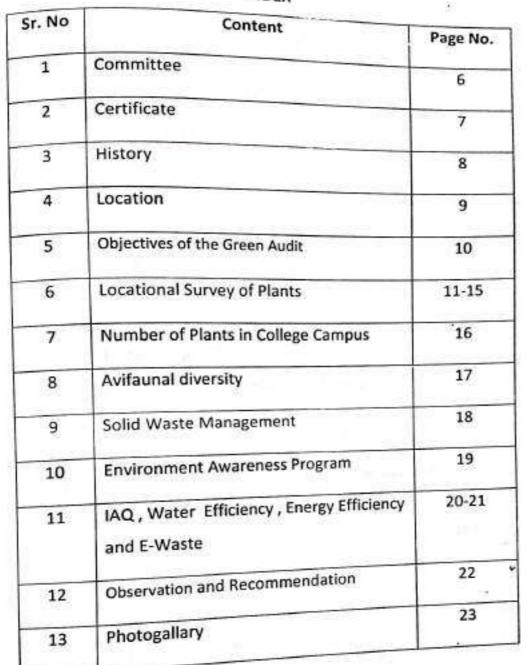
prepare from the plants. The ultimate aim of our institution to develop youth as fertile probe who understand for their social responsibilities.

Lexpress my hearty wishes for success of this movement of Green 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. B.G. Kulkarni Principal

### INDEX





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



## CERTIFICATE OF GREEN 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 conducted detailed Green Audit of their college and has submitted necessary data and credentials for scrutiny.

The activities and measures carried out by the college have been verified based on the report submitted and was found to be satisfactory.



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

(Dr. Pramod Salaskar) Dharitree Enviro Research Centre

Date of Issue: 4th June 2017

Hulhe

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Pune Videnthi Griha's
College of Science & Technology

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 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. 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.

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College of Science & Foctor sloav

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 Pune Vidyarthi Griha's College of Science & Technology Campus

Country	India	
State	Maharashtra	
District	Mumbai	
City	Mumbai	
Area	Ghatkopar East	
Elevation	20 meter	
Population (2017)	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	

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

## objectives of the Green Audit :

The main objective of the green audit is to promote the Environment Management and Conservation in the College Campus. The purpose of the audit is to identify, quantify, describe and prioritize framework of Environment Sustainability in compliance with the applicable regulations, policies and standards.

The main objectives of carrying out Green Audit are:

- 1. To introduce and aware students to real concerns of environment and its sustainability
- To secure the environment and cut down the threats posed to human health by analyzing the pattern and extent of resource use on the campus.
- To establish a baseline data to assess future sustainability by avoiding the interruptions in environment that are more difficult to handle and their corrections requires high cost.
- 4. To bring out a status report on environmental compliance.

### Methodology:

Green audit of the campus is prepared by various methods including different tools such as questionnaire, physical inspection of the campus, observation and review of the documents, interviewing key persons and data analysis, observation and recommendations. The study covered the following areas to summaries the present status of environmentally sustainable management on the campus.

- Landscape and plantation
- Solid Waste management
- Sewage Waste management
- E-waste management
- Energy Conservation
- Rain water harvesting
- Environmental activities

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

ree	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°54.238'8
4	Dypsis lutescens	Aareca Palm	19°04.215'N; 72°54.223'
5	Polyalthia longifolia	Ashoka	19°04.211′N; 72°54.234′
6	Terminalia catapa L.	Deshibadam	19°04.211′N; 72°54.232′
7	Terminalia catapa L.	Deshibadam	19°04.211'N; 72°54.233'
8	Polyalthia longifolia	Ashoka	19°04.210′N; 72°54.232′
9	Terminalia catapa L.	Deshibadam	19°04.197'N; 72°54.223'
10	Cocos nucifera L.	Naral	19°04.204'N; 72°54.229'i
11	102.54	Sagwan	19°04.194'N; 72°54.220'l
12	Tectona grandis	Naral	19°04.193′N; 72°54.219′I
See a	Cocos nucifera L.	Sagwan	19°04.193′N; 72°54.217′F
13	Tectono grandis	Naral	19°04.193'N; 72°54.217'6
14	Cocos nucifera	Sagwan	19°04.192'N; 72°54.223'E
15	Tectona grandis	Naral	19°04.193'N; 72°54.215'f
16	Cocos nucifera	Sagwan	19°04.193'N; 72°54.217'f
17	Tectona grandis	Amba	19°04.185′N; 72°54.213′E
18	Mangifera indica L.	Sagwan	19°04.185′N; 72°54.213′F
19	Tectona grandis	Kadam	19°04.185′N; 72°54.213′E
20	Neolamarckia cadamba	Naral	19°04.183'N; 72°54.213'E
21	Cocos nucifera	Naral	19°04.183′N; 72°54.216′E
22	Cocos nucifera L.	Sagwan	19°04.183′N; 72°54.219′E
23	Tectona grandis	Naral	19°04.183′N; 72°54.212′E
24	Cocos nucifera L.	Bottle palm	19°04.183'N; 72°54.214'E
25	Hyophorbe lagenicaulis	Naral	19°04.182'N; 72°54.211'E
26	Cocos nucifera L.	Sagwan	19°04.182 N , 72 34.220 C



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Tectona grandis

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College of Science & Technology

# Pune Vidyarthi Griha's College of Science & Technology

Green Audit 2017- 19

58	Terminalia catapa L.	Deshibadam	19°04.185'N; 72°54.194'I
59	Cocos nucifera L.	Naral	19°04.185′N; 72°54.194′0
50	Polyalthia langifolia	Ashoka	19°04.186′N; 72°54.194′
61	Cocos nucifera L.	Naral	19°04.185′N; 72°54.197′I
62	Hyaphorbe lagenicaulis	Bottle palm	19°04.184'N; 72°54.269'i
63	Cocos nucifera L.	Naral	19°04.184'N; 72°54.269'
64	Polyalthia longifolia	Ashoka	19°04.184'N; 72°54.271'6
65	Polyalthia longifolia	Ashoka	19°04.184'N; 72°54.276'8
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	19°04.185′N ; 72°54.218′E
79	Cocos nucifera L.	Naral	19°04.185′N; 72°54.223′E
80	900000	Gulmohar	19°04.185′N; 72°54.225′E 19°04.185′N; 72°54.229′E
81	Delanix regla	Naral	19°04.185′N; 72°54.234′E
82	Cocos nucifera L. Polyalthia longifolia	Ashoka	19°04.185′N; 72°54.237′E
83	Hyophorbe lagenicaulis	Bottle palm	19°04.185'N; 72°54.239'E
84	Cocos nucifera L.	Naral	19°04.185′N; 72°54.241′E
85	Cocos nucifera L.	Naral	19°04.185'N; 72°54.243'E
86	Cocos nucifera L.	Naral	19°04.185′N; 72°54.247′E
87	Cocos nucifera L.	Naral	1,1,1

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Cellege of Science & Technology

88	Cocos nucifera L.	Naral	19°04.182'N ; 72°54.247'E
-1	Aegle marmelos	Bel	19°04.182'N; 72°54.244'E
39	Cocas nucifera L.	Naral	19°04.182'N; 72°54.240'E
90	Hyopharbe lagenicaulis	Bottle palm	19°04.182'N; 72°54.235'E
91	Murraya koenigii	Kadi Patta	19°04.184'N; 72°54.253'E
92	peltophorum pterocarpum	Sonmohar	19°04.190'N; 72°54.270'E
93		Katesavar	19°04.184'N; 72°54.249'E
94	Bombax ceiba L.	Naral	19°04.184′N; 72°54.241′E
95	Cocos nucifera L.	Sonmohar	19°04.192'N; 72°54.267'E
96	Peltophorum pterocarpum	Vad	19°04.192'N; 72°54.273'E
97	Ficus benghalensis L.	Neem	19°04.192'N; 72°54.273'E
98	Azadirachta indica	Neelgiri	19°04.192'N; 72°54.273'E
99	Eucalyptus grandis	Neem	19°04.193'N; 72°54.269'E
100	Azadirachta indica	Chapha	19°04.193'N; 72°54.268'E
101	Plumeria obtusa L.		19°04.192'N; 72°54.274'E
102	Carica papaya	Pappayi	19°04.192'N; 72°54.273'E
103	Eucolyptus grandis	Neelgiri	19°04.192'N; 72°54.273'E
104	Eucalyptus grandis	Neelgiri	19°04.189'N; 72°54.255'E
105	Annona squamosa	Sitphal	19°04.198'N; 72°54.264'E
106	Cocos nucifera L.	Naral	19°04.200'N; 72°54.112'E
107	Tectona grandis	Sagwan	19°04.202'N; 72°54.243'E
108	Cacos nucifera L.	Naral	19°04.202'N; 72°54.245'E
109	Cocos nucifera L.	Naral	19°04.200'N; 72°54.206'E
110	Cocos nucifera L.	Naral	19°04.200'N; 72°54.203'E
111	Mangifera indica L.	Amba	19°04.200'N; 72°54.176'E
112	Cocos nucifera L.	Naral	19°04.200'N; 72°54.189'E
113	Cocos nucifera L.	Naral	19°04.200'N; 72°54.192'E
114	Cocos nucifera L.	Naral	19°04.200'N ; 72°54.196'E
115	The same of the sa	Umber	19°04.200 N; 72°54.184′6
116	Ficus racemosa L.	Naral	1
117	Cocos nucifera L.  Cocos nucifera L.	Naral	19°04.200'N; 72°54.169'E

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College of Science & Technology



# Pune Vidyarthi Griha's College of Science & Technology

## Green Audit 2017- 19

Cocos nucifera L.	Naral	19°04.206'N; 72°54.282'E
Pongamia pinnata	Karanj	19°04.205'N; 72°54.279'E
Polyalthia longifolia	Ashoka	19°04.207'N; 72°54.223'E
Peltophorum pterocarpum	Sonmohar	19°04.208'N; 72°54.237'8
Polyalthia longifolia	Ashoka	19°04.208'N; 72°54.249'I

Diail-

Green Audit 2017- 19

Table: Species wise count of trees

r. o.	Botanical Name	Local Name	Family	Native/ Introd. / Nt.	Vegeta tion type	No. of
1	Aegle marmelos	Bel		Native		individuals plants
	Annona squamosa	Ciencia	Rutaceae		Deciduous	1
2	Artocarpus	lisaci i	Annonaceae	Nt	Evergreen	3
3	heterophyllus Azodirachta	Lanca State of the Control of the Co	Moraceae	Native	Evergreen	1
5	indica Bombax ceiba	Neem Katesavar	Meliaceae	Native	Evergreen	2
6	Carica papaya	Pappayi	Malvaceae	Native	Deciduous	1
7	Cocos nucifera	Naral	Caricaceae	Native	Evergreen	1
-		-	Arecaceae	Native	Evergreen	47
8	Delonix regia  Dypsis	Gulmohar	Caesalpiniaceae	Nt	Evergreen	1
9	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	Mongifera Indica	Amba	Anacardiaceae	Native	Evergreen	4
15	Moringa oleifera	Shevga	Moringaceae	Native	Deciduous	1
16	Murraya koenigii	Kaddi patta	Rutaceae	Native	Deciduous	1
17	Neolamarckia cadamba	Kadamb	Rubiacea	Native	Evergreen	1
18	Peltophorum pterocarpum	Sonmohar	Caesalpiniaceae	Introd	Evergreen	,
19	Plumeria	Chapha	Apocynaceae	Introd	Evergreen	•
20	Polyalthia	Ashoka	Annonaceae	Native	Evergreen	.3.
	Pongamia		Fabaceae	Native		
21	Tectona	Karanj	Verbenaceae	Native		
22	grandis Terminalia	Sagwan	Combretaceae	Native	Deciduous	122



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College of Science & Technology

# Pune Vidyarthi Griha's College of Science & Technology Green Audit 2017- 19

Table 4	: Avifaunal dive Scientific	Common	<b>IUCN Status</b>	IWPA	Feeding Habit	Dwelli
Family	Name	Name		Assessment	recailing mann	Statu
Convidae	Corvus splendens	House Crow	Least Concern ver 3.1	Schedule - V	Omnivorous	R
Pycnonotidae	Pycnonatus 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
Meropidae	Merops orientalis	Small Bee Eater	Least Concern ver 3.1	12	Insectivorous	R
Halcyonidae	Halcyon smyrnensis	White- throated Kingfisher	Least Concern ver 3.1	Schedule -IV	Piscivorous & Insectivorous	R
Columbidae	Columba livia	Blue Rock Pigeon	Least Concern ver 3.1	57	Granivorous	R
Dicruridae	Dicrurus macrocercus	Black Drongo	Least Concern ver 3.1	Schedule - IV	Omnivorous	R
Sturnidae	Acridotheres tristis	Common Myna	Least Concern ver	Schedule - IV	Omnivorous	R
Muscicapidae	Copsychus saularis	Oriental Magpie- Robin	Least Concern ver 3.1		Insectivorous & Herbivorous	
Cuculidae	Centropus	Greater Coucal	Least Concern ver	Schedule -IV	Carnivorous	R

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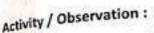
## SOLID WASTE MANAGEMENT

## Aim :-

- 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.



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.

College of Science & Technology



# 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.

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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
- 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.
- Both sides of the pages are utilized to avoid excess paper usages.
- paper wastes are not directly disposed of 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

- Trees are planted in the periphery of the ground and pathway sides in proper manner. Green initiatives:
  - The college has taken initiative for wide range of activities such as Swatch Bharat Campaign, poster competition, environment campaign for plantation, awareness on water conservation, essay competition and energy conservation to inculcate ecological awareness.

# Access, Maintenance and emergency plan of the Building:

- There is wide and easy access to the college campus from the main road.

- The main building and extension building structures are well maintained. Portable Fire Extinguishers are placed at prominent locations to handle minor fire.
- Good housekeeping practices are followed.

College of Science & Technology

, line

## Observation:

- Many indoor plants were observed on 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> floor of the college. Many flowe trees, which bloom in different seasons, in front of the large trees and along the periphe were planted.
- Tank top cover of all drinking water coolers should be locked and date of last cleaning and due date to be displayed.
- Speed Breaker on both side of Main gate and Display Board College ahead No Honking are observed on main road in front of college gate.
- Fire Extinguishers are placed on every floor and in Labs. Suitable signage for fire/emergency exit and assembly points to be placed where required.

## Suggestion/Recommendations:

- Water recycling/sewage treatment plants may be installed and recycled water to be used for gardening/horticulture and toilet flushing etc.
- Energy meter may be provided separately for each department to monitor and control monthly electricity consumption and records to be maintained.
- All CFL may be replaced with LED lamps to save energy.
- Annual consumption target for paper may be given to the department as per requirement and shall be monitored with records to understand the impact of digitization in the college.
- Students may be involved to practice on reduction of electricity consumption and various methods to reduce paper consumption.
- Internal notices and communications can be done through e- mail/SMS to reduce paper uses.

For Dharitree Enviro Research Centre

## PHOTOGALLARY





Green belt in the college premises





Fire Extinguishers

Approach Road to College

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



## CERTIFICATE OF GREEN 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 conducted detailed Green Audit of their college and has submitted necessary data and credentials for scrutiny. The activities and measures carried out by the college have been verified based on the report submitted and was found to be satisfactory.



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

Date of Issue: 3rd June 2019



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## DHARITREE ENVIRO RESEARCH CENTRE

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## Pune Vidyarthi Griha's College of Science & Technology

### GREEN AUDIT REPORT

(2019 - 2021)



For Dharitree Enviro Research Centre

Proprietor

#### PHOTOGALLARY





Fire Extinguishers

Sports facilities at premises



Green belt around the college premises

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

Green Audit 2019 - 21

the term "Green" means eco-friendly or not damaging the environment. "Green Auditing an umbrella term, is known by another name "Environmental Auditing". In auditing literature both the terms are being used interchangeably. To implement the green audit other important aspects such as objective of green audit, drivers of green audit, future scope, benefits, and advantages are necessary to understand.

concept of green audit is not limited to the decorating the college campus but also corporate responsibility, with quality education keep college environment eco-friendly with its facilities.

Attempt has been made on that direction by landscaping and plantation, solid waste management, recycling of waste water, conservation of energy, water conservation, rainwater harvesting and minimum of usage of paper.

With keeping this view our campus is clean and fresh, we try to inculcate value of surrounding environment amongst the students through Environmental awareness activities like nature club, NSS", Quiz competition on environment,

Flower Arrangement, Gardening development and nursery management course, Mushroom cultivation course, Production of vermicomposting from solid waste and activity like Competition on Preparation of "Best from Waste", preparation of trenches and plantation of tree sapling on the campus is maintaining by the student of College.

Because of the greenery and eco-friendly sustainable environment, college campus becomes more charming, refreshing and healthier. This increases efficiency of every element of the college.

T/C Principal
Pune Videnthi Griha's
College of Science & Technology

## pune Vidyarthi Griha's College of Science & Technology

Green Audit 2019 - 21

Acknowledgement....

We take this opportunity to express our gratitude towards the president of the Institute 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,"

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 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

Pune Vidarthi Gnha's College of Science & Technology principal Message....

lexpress my hearty wishes for success of this publication of 'Green 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 Green 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.

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Pune Videnthi Griha's
College of Science & Technology

### GREEN AUDIT REPORT COMMITTEE (2019 – 2021)



sr.No.	Name	Designation	Committee Role	Signature
1	Dr. Ajay Kumar Pathak	I/C Principal	Coordinator	ALDILL
2	Dr. Pramod Salaskar	Dharitree Enviro Research Centre	External Auditor	Wapan
3	Prof. Meena Patel	Asst. Professor	Internal Auditor	waster
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5	Prof. Gaurav Singh	Asst. Professor	Internal Auditor	U.S.mes

Pune Vidarthi Griha's
College of Science & Technology



### CERTIFICATE OF GREEN 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 conducted detailed Green Audit of their college and has submitted necessary data and credentials for scrutiny.

The activities and measures carried out by the college have been verified based on the report submitted and was found to be satisfactory.

THANE O

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

Date of Issue: 3rd June 2019

(Dr. Pramod Salaskar) Dharitree Enviro Research Centre

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

History:

An education only can provide, the stability, and one could gain name and fame i 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. 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.

College of Science & Technology

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 Pune Vidyarthi Griha's College of Science & Technology Campus

Country	India
State	Maharashtra
District	Mumbai
City	Mumbai
Area	Ghatkopar East
Elevation	20 meter
Population	Population (2020): 146056
D.H.R. WELLES	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

College of Science & Technology

objectives of the Green Audit :

the main objective of the green audit is to promote the Environment Management and Conservation in the College Campus. The purpose of the audit is to Identify, quantify, describe and prioritize framework of Environment Sustainability in compliance with the applicable regulations, policies and standards.

The main objectives of carrying out Green Audit are:

- 1. To introduce and aware students to real concerns of environment and its sustainability
- To secure the environment and cut down the threats posed to human health by analyzing the pattern and extent of resource use on the campus.
- To establish a baseline data to assess future sustainability by avoiding the interruptions in environment that are more difficult to handle and their corrections requires high cost.
- 4. To bring out a status report on environmental compliance.

#### Methodology:

Green audit of the campus is prepared by various methods including different tools such as questionnaire, physical inspection of the campus, observation and review of the documents, interviewing key persons and data analysis, observation and recommendations. The study covered the following areas to summaries the present status of environmentally sustainable management on the campus.

- Landscape and plantation
- Solid Waste management
- Sewage Waste management
- E-waste management
- Energy Conservation
- Rain water harvesting
- Environmental activities

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

Tree	Botanical name	Local Name	THE COLLEGE CAMPUS
1	Terminalia catapa	Deshibadam	Lat./Long (Location)
2	Polyalthia longifolia	Ashoka	19°04.216′N; 72°54.240′8
3	Terminalia catapa	Deshibadam	19°04.216′N; 72°54.238′8
4	Dypsis lutescens	Aareca Palm	19°04.216′N; 72°54.238′6
5	Polyalthia longifolia	Ashoka	19°04.215′N; 72°54.223′I
6		Deshibadam	19°04.211′N; 72°54.234′I
-	Terminalia catapa L.		19°04.211′N; 72°54.232′I
7	Terminalia catapa L.	Deshibadam	19°04.211′N; 72°54.233′l
8	Polyalthia longifolia	Ashoka	19°04.210′N; 72°54.232′I
9	Terminalia catapa L.	Deshibadam	19°04.197′N; 72°54.223′I
10	Cocos nucifera L.	Naral	19°04.204'N; 72°54.229'i
11	Tectona grandis	Sagwan	19°04.194′N; 72°54.220′I
12	Cocos nucifera L.	Naral	19°04.193′N; 72°54.219′I
13	Tectona grandis	Sagwan	19°04.193′N; 72°54.217′
14	Cocos nucifera	Naral	19°04.193'N; 72°54.217'
15	Tectona grandis	Sagwan	19°04.192'N ; 72°54.223'i
16	Association with the city	Naral	19°04.193′N; 72°54.215′
17	Cocos nucifera	Sagwan	19°04.193′N; 72°54.217′I
18	Tectona grandis	Amba	19°04.185′N; 72°54.213′I
19	Mangifera Indica L.	Sagwan	19°04.185′N; 72°54.213′
32	Tectona grandis	Kadam	19°04.185′N ; 72°54.213′
20	Neolamarckia cadamba	Naral	19°04.183'N; 72°54.213'
21	Cocos nucifera	Naral	19°04.183'N; 72°54.216'
22	Cocos nucifera L.	Sagwan	19°04.183′N; 72°54.219′
23	Tectona grandis	Naral	19°04.183'N; 72°54.212'
24	Cocos nucifera L.		19°04.183'N; 72°54.214'I
25	Hyophorbe lagenicaulis	Bottle palm	19°04.182'N; 72°54.211'
26	Cocos nucifera L.	Naral	عال ا

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11	rectona grandis	Sagwan	19°04.187'N , 72°54.718'E	
n	Lectona grandis	Sagerary	19°04.183'N ; 72°54.727'E	
0	Lectona grandis	Sagoran	19*04.18191; 72*54.22;	
0	Tectona grandis	Sagwan	19°04.183'N; 72°54.225'E	
11	Tectona grandis	Sagwan	19°04.183'N; 72°54.219'E	
2	polyalthia longifolia	Ashoka	19°04.183°H; 72°54.214°E	
,	Cocos nucifera L.	Haral	19°04.183'N; 72°54.209'E	
4	Tectona grandis	Sagwan	19°04.183'N; 72°54.210'E	
5	Tectona grandis	Sagwan	19°04.183'N ; 72°54.227'E	
6	Cocos nucifera L.	Naral	19"04.183"N; 72"54.227"E	
7	Cocos nucifera L.	Naral	19°04.183'N; 72°54.227'E	
R	Tectona grandis	Sagwan	19°04.182'N; 72°54.218'E	
9	Cocos nucifera L.	Naral	19°04.182'N; 72°54.218'E	
0	Tectona grandis	Sagwan	19°04.182'N ; 72°54.218'E	
11	Hyophorbe lagenicaulis	Bottle palm	19°04.182'N; 72°54.218'E	
12	The same of the sa	Naral	19°04.182'N; 72°54.218'E	
-	Cocos nucifera L.	Naral	19°04.183'N; 72°54.227'E	
13	Cocos nucifera L.	Ashoka	19°04.183'N; 72°54.227'E	
14	Polyalthia langifolia	Naral	19°04.183'N; 72°54.227'E	
15	Cocos nucifera L.	Naral	19°04.183'N; 72°54.227'E	
16	Cocos nuclfera L.	Sitphal	19°04.184'N; 72°54.226'E	
17	Annona squamosa	7-0	19°04.184'N; 72°54.226'E	
18	Cocos nucifera L.	Naral	19°04.184'N; 72°54.221'E	
19	Ficus racemosa L.	Umber	19°04.184'N; 72°54.226'E	
50	Cocos nucifera L.	Naral	19°04.184'N; 72°54.230'E	
51	Annona squamosa	Sitphal	19°04.184'N ; 72°54.225'E	
52	Tectona grandis	Sagwan	19°04.184'N . 72°54.218'E	
53	Cocos nucifera L.	Naral	19°04.184'N ; 72"54.213'E	
54	**************************************	Ashoka	19°04.185'N; 72°54.207'E	
55	Polyalthia longifolia	Naral	19°04.188'N; 72°54.242'E	
56	Cocos nucifera L.  Hyophorbe lagenicaulis	Bottle palm	17 4.00	

17-7

## pune Vidyarthi Griha's College of Science & Technology

;7.	Tectona grandis	Sagwan	19°04.188'N; 72°54.240'E
8	Terminalia catapa L.	Deshibadam	19°04.185'N; 72°54.194'E
9	Cacas nucifera L.	Naral	19°04.185′N; 72°54.194′E
0	Palyalthia longifolia	Ashoka	19°04.186'N; 72°54.194'E
1	Cocos nucifero L.	Naral	19°04.185'N; 72°54.197'E
2	Hyophorbe lagenicaulis	Bottle palm	19°04.184'N; 72°54.269'E
3	Cocos nucifera L.	Naral	19°04.184'N; 72°54.269'E
4	Polyalthia longifolia	Ashoka	19°04.184'N; 72°54.271'E
5	Polyalthia longifolia	Ashoka	19°04.184'N; 72°54.276'E
6	Cocos nucifera L.	Naral	19°04.184'N; 72°54.283'E
-		Amba	19°04.185'N; 72°54.294'E
57	Mangifera indica L.	Naral	19°04.185'N; 72°54.194'E
88	Cocos nucifera L.	Sagwan	19°04.185'N; 72°54.194'E
59	Tectona grandis	Ashoka	19°04.185'N; 72°54.194'E
70	Polyalthia longifalia	Phanas	19°04.185′N; 72°54.197′E
71	Artocarpus heterophyllus Lamk.	Naral	19°04.185′N; 72°54.195′E
72	Cocos nucifera L.	Shevga	19°04.185′N; 72°54.199′E
73	Moringa oleifera	Naral	19°04.185'N; 72°54.202'E
74	Cocos nucifero L.	-	19°04.185′N; 72°54.204′E
75	Hyophorbe lagenicaulis	Bottle palm	19°04.185′N; 72°54.209′E
76	Polyalthia longifolia	Ashoka	19°04.185'N; 72°54.213'E
77	Ficus racemosa L.	Umber	19°04.185'N; 72°54.218'8
78	Cocos nucifera L.	Naral	19°04.185'N; 72°54.223'6
79	Cocos nucifera L.	Naral	19°04.185'N; 72°54.225'E
80	Delonix regia	Gulmohar	19°04.185'N; 72°54.229'8
81	Cocos nucifera L.	Naral	19°04.185′N; 72°54.234′E
82	Polyalthia longifolia	Ashoka	19°04.185′N; 72°54.237′E
83	Hyophorbe lagenicaulis	Bottle palm	19°04.185′N; 72°54.239′8
84	Cocos nucifera L.	Naral	19°04.185′N; 72°54.241′E
85	Cocos nucifera L.	Naral	19°04.185′N; 72°54.243′E
86	accos nacijera L.	Naral	19"04.185 N , 72 34.243 C

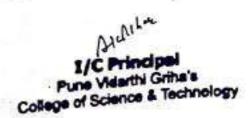
Aulil-I/C Principal Pune Vidarthi Griha's College of Science & Technology

Naral

86

Cocos nucifera L.

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	Bet	19°04.182'N; 72°54.244	
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		Neem	19°04.192'N; 72°54.273'E	
7	Azadirachta Indica	Neelgiri	19°04.192'N; 72°54.273'E	
99	Eucalyptus grandis	Neem	19°04.193'N; 72°54.269'E	
100	Azadirachta indica	Chapha	19°04.193′N; 72°54.268′E	
101	Plumeria obtusa L	Pappayi	19°04.192′N ; 72°54.274′E	
102	Carica papaya	Neelgiri	19°04.192'N; 72°54.273'E	
103	Eucalyptus grandis	Charles and Charles	19°04.192'N; 72°54.273'E	
104	Eucalyptus grandis	Neelgiri	19°04.189'N; 72°54.255'E	
105	Annona squamosa	Sitphal	19°04.198'N; 72°54.264'E	
106	Cacas nucifera L.	Naral	19°04.200'N; 72°54.112'E	
107	Tectona grandis	Sagwan	19°04.202'N; 72°54.243'E	
108	Cocos nucifera L.	Naral		
109	Cocos nucifera L.	Naral	19°04.202'N; 72°54.245'E	
10	Cocos nucifera L.	Naral	19°04.200'N; 72°54.206'E	
11	1200 130 N N N	Amba	19°04.200'N; 72°54.203'E	
112	Mangifera indica L.	Naral	19°04.200'N; 72°54.176'E	
13	Cocos nucifera L.	Naral	19°04.200'N; 72°54.189'E	
114	Cocos nucifera L.	Naral	19°04.200'N; 72°54.192'E	
	Cocos nucifera L.		19°04.200'N; 72°54.196'E	
115	Ficus racemosa L.	Umber	19°04.200'N; 72°54.184'E	
116	Cocos nucifera L.	Naral		



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Cocos nucifera L.	Naral	19°04.200'N; 72°54.169'E
Cocos nucifera L.	Naral	19°04.206′N; 72°54.282′E
pongamia pinnata	Karanj	19°04.205'N; 72°54.279'E
polyalthia longifolia	Ashoka	19°04.207'N; 72°54.223'E
peltophorum pterocarpum	Sonmohar	19°04.208'N; 72°54.237'E
Polyalthia longifolia	Ashoka	19°04.208'N; 72°54.249'E

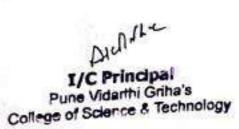
Mr. Nr

I/C Principal
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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
1	Aegle marmelos	Bel	Rutaceae	Native	Deciduous	plants 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 Iutescens	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	Kaddi patta	Rutaceae	Native	Deciduous	1
17	Neolamarckia codomba	Kadamb	Rubiacea	Native	Evergreen	1
18	Peltophorum pterocarpum	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	18
22	Tectona grandis	Sagwan	Verbenaceae	Native	Deciduous	6
23	Terminalia catapa	Deshibadam	Combretaceae	Notive	Total	122





Pune Vidyarthi Griha's College of Science & Technology

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rable	2: Avifaunal divers	ity observed in	nmediate surro	Indiana af at a		3 00
Family	36,400	Name	IUCN Status	IWPA Assessment	Feeding Habit	Dwening
corvidae	Corvus spiendens	House Crow	Least Concern ver 3.1	Schedule - V	Omnivorous	R
	Corvus macrorhynchos	Jungle Crow	Least Concern ver 3.1	-	Omnivorous	R
pycnonotidae	Pycnonatus cafer	Red Vented Bulbul	Least Concern ver 3.1	Schedule - IV	Omniverous	R
	Pycnonotus jocosus	Red Whiskered Bulbul	Least Concern ver 3.1	Schedule - IV	Omnivorous	R
Meropidae	Merops orientalis	Small Bee Eater	Least Concern ver 3.1		Insectivorous	B.
Halcyonidae	Halcyon smyrnensis	White- throated Kingfisher	Least Concern ver 3.1	Schedule -IV	Piscivorous & Insectivorous	R
Columbidae	Streptopelia chinensis	Spotted Dove	Not Assessed	Schedule -IV	Granivorous	R
	Columba livia	Blue Rock Pigeon	Least Concern ver 3.1		Granivorous	R
Dicruridae	Dicrurus macrocercus	Black Drongo	Least Concern ver 3.1	Schedule - IV	Omnivorous	R
Sturnidae	Acridotheres tristis	Common Myna	Least Concern ver 3.1	Schedule - IV	Omnivorous	R
Muscicapidae	Copsychus saularis	Oriental Magpie- Robin	Least Concern ver 3.1	**	Insectivorous & Herbivorous	R
Cuculidae	Centropus sinensis	Greater Coucal	Least Concern ver 3.1	Schedule -IV	Carnivorous	R

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#### SOLID WASTE MANAGEMENT

11 Scientific disposal of solid waste

# 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

a Production of green manure and vermicompost.



### Livity / 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 pe 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 se 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 vernicompost, 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.

> ALLILL I/C Principal College of Science & Technology

## 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.

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#### Green 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
- The college is located away from road side so there is no major noise pollution.

### Observations

- Many indoor plants were observed on 1<sup>st</sup>, 2<sup>std</sup> and 3<sup>rd</sup> floor of the college. Many flowering trees, which bloom in different seasons, in front of the large trees and along the periphery were planted.
- Tank top cover of all drinking water coolers should be locked and date of last cleaning and due date to be displayed.
- Speed Breaker on both side of Main gate and Display Board College ahead No Honking are observed on main road in front of college gate.
- Fire Extinguishers are placed on every floor and in Labs. Suitable signage for fire/emergency
  exit and assembly points to be placed where required.

#### Suggestion/Recommendations:

- Water recycling/sewage treatment plants may be installed and recycled water to be used for gardening/horticulture and tollet flushing etc.
- Energy meter may be provided separately for each department to monitor and control
  monthly electricity consumption and records to be maintained.
- All CFL may be replaced with LED lamps to save energy.
- Annual consumption target for paper may be given to the department as per requirement and shall be monitored with records to understand the impact of digitization in the college.
- Students may be involved to practice on reduction of electricity consumption and various methods to reduce paper consumption.
- Internal notices and communications can be done through e- mail/SMS to reduce paper uses.

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for Dharitree Enviro Research Centre

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Y/C Principal
Pune Vidarthi Griha's
College of Science & Technology

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.

#### 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.

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For Dharitree Enviro Research Centre nabó

Proprietor



#### DHARITREE ENVIRO RESEARCH CENTRE

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#### Pune Vidyarthi Griha's College of Science & Technology

#### GREEN AUDIT REPORT

(2021 - 2023)



For Dharitree Enviro Research Centre

McClaokes

Proprietor



#### CERTIFICATE OF GREEN 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 conducted detailed Green Audit of their college and has submitted necessary data and credentials for scrutiny.

The activities and measures carried out by the college have been verified based on the report submitted and was found to be satisfactory.



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

Date of Issue: 6th June 2021

(Dr. Pramod Salaskar)

Dharitree Enviro Research Centre

History:



An education only can provide, stability, and one could gain name and fame in society, an education is 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 students, who used to work hard and some of them would get 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 [PVG] formerly known as "Pune Anath Vidyarthi Griha". Pune Anath Griha was established in 1909 by Kulguru Dada Saheb Ketkar for imparting school education to students in weaker sections of society. From the beginning, PVG focused on school education. Later on, realizing the need for higher education institutions in Maharashtra, PVG started higher education institutions in Printing Technology, Engineering, and Management. At present PVG has campuses located in 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. Itis Affiliated with the 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 permission to the college to start B.com, BMS & BBI course in the year 2017 – 18.

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#### **GREEN AUDIT REPORT COMMITTEE**

(2021 - 2023)

Sr.No.	Name	Designation	Committee Role	Signature
1	Dr. Ajay Kumar Pathak	I/C Principal	Coordinator	Aurilie
2	Dr. Pramod Salaskar	Dharitree Enviro Research Centre	External Auditor	walook
3	Prof. Meena Patel	Asst. Professor	Internal Auditor	Heater
4	Prof. Sita Nadar	Asst. Professor	Internal Auditor	8114:10
5	Prof. Gaurav Singh	Asst. Professor	Internal Auditor	Ch. Simb
6	Prof. Archana Bhosale	Asst. Professor	Internal Auditor	Bhrode

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



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

principal Message....



respress my hearty wishes for success of this publication of 'Green Audit 2021- 2023'.

In profess 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, ewaste 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.

Durgreen audit reflects assessment and achievement of vision and mission of the college.

Dr. Ajay Kumar Pathak VcPrincipal

AUNILE

1/C Principal

Pune Vidyarthi Griha's

College of Science & Technology

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

	Botanical name	Local Name	Lat./Long (Location)
tree No.	Terminalia catapa	Deshibadam	19°04.216'N; 72°54.240'E
1	Polyalthia longifolia	Ashoka	19°04.216'N; 72°54.238'E
2	Terminolia catapa	Deshibadam	19°04.216'N; 72°54.238'E
3	Dypsis lutescens	Aareca Palm	19°04.215'N; 72°54.223'E
4	Polyalthia longifolia	Ashoka	19°04.211'N; 72°54.234'E
5	Terminalia catapa L.	Deshibadam	19°04.211'N; 72°54.232'E
6	Terminalia catapa L.	Deshibadam	19°04.211'N; 72°54.233'E
7		Ashoka	19°04.210'N; 72°54.232'E
8	Polyalthia longifolia	Deshibadam	19°04.197'N; 72°54.223'E
9	Terminalia catapa L.	Naral	19°04.204'N; 72°54.229'E
10	Cocos nucifero L.	Sagwan	19°04.194'N; 72°54.220'E
11	Tectona grandis	Naral	19°04.193'N; 72°54.219'E
12	Cocos nucifera L.	Sagwan	19°04.193'N; 72°54.217'E
13	Tectona grandis	Naral	19°04.193'N; 72°54.217'E
14	Cocos nucifera		19°04.192'N; 72°54.223'E
15	Tectona grandis	Sagwan	19°04.193'N; 72°54.215'E
15	Cocos nucifera	Naral	19°04.193'N; 72°54.217'E
17	Tectona grandis	Sagwan	19°04.185'N; 72°54.213'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	Neolomarckia cadamba	Kadam	19°04.183'N; 72°54.213'E
21	Cocos nucifera	Naral	19°04.183'N; 72°54.216'E
22	Cocos nucifera L.	Naral	19°04.183'N : 72°54.219'E
23	Tectona grandis	Sagwan	19°04.183'N: 72°54.212'E
24	Cocos nucifera L.	Naral	19°04.183 N : 72°54 214'E
25	Hyophorbe lagenicaulis	Bottle palm	19°04.183'N; 72°54.214'E
26	Cocos nucifera L.	Naral	19°04.182'N; 72°54.211'E
27	Tectona grandis	Sagwan	19°04.182'N; 72 54.227'E Appl
58	Tectona g. andis	Sagwan	19°04.182'N; 72°54.218'E  19°04.183'N; 72°54.227'E  19°04.183'N; 72°54.218'E  19°04.185'E  19°04
59	Tectona grandis	Sagwan	19°04,183'N; 72"54 Advalor & Technology
	granuis	308	19°04.183'N; 72"54 270 Farthi Griha's 19°04.183'N; 72"54 270 Farthi Griha's College of Science & Technology

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une V	<sub>idyarthi</sub> Griha's College of S	VOLUMENTO T.V	Green Audit 2021 - 23
	rectona grandis	Sagwan	1 Gharkopar
30	Tectana grandis	Sagwan	19°04.183'N; 72°54.225'EE Numbai
31	anlvalthia longifolia	Ashoka	19°04.183'N; 72°54.214'E
32	Cocos nuc.; era L.	Naral	19°04.183'N; 72°54.209'E
33	Tectona grandis	Sagwan	19°04.183'N; 72°54.210'E
34	Tectona grandis	Sagwan	19°04.183'N; 72°54.227'E
35	Cocos nucifera L.	Naral	19°04.183'N; 72°54.227'E
36	Cocos nucifera L.	Naral	19°04.183'N; 72°S4.227'E
37	Tectona grandis	Sagwan	19°04.182'N; 72°54.218'E
35	Cocas nucifera L.	Naral	19°04.182'N; 72°54.218'E
9	Tectona grandis	Sagwan	19°04.182′N; 72°54.218′E
10	Hyophorbe lagenicaulis	Bottle palm	19°04.182'N; 72°54.218'E
11	Cocos nucifera L.	Naral	19°04.182'N; 72°54.218'E
12	20 C 10 C	Naral	19°04.183'N; 72°54.227'E
3	Cocos nucifera L.	Ashoka	19°04.183'N; 72°54.227'E
4	Polyalthia longifolia	Naral	19°04.183'N; 72°54.227'E
15	Cocos nucifera L.	Naral	19°04.183'N; 72°54.227'E
45	Cocos nucifera L.	Sitphal	19°04.184'N; 72°54.226'E
47	Annona squamosa	Naral	19°04.184'N; 72°54.226'E
48	Cocos nucifera L.	Umber	19°04.184'N; 72°54.221'E
49	Ficus racemosa L.	37050009C)	19°04.184'N; 72°54.226'E
50	Cocos nucijera L.	Naral	19°04.184'N; 72°54.230'E
51	Annona squamosa	Sitphal	19°04.184'N; 72°54.225'E
52	Tectona grandis	Sagwan	19°04.184'N; 72°54.218'E
53	Cocos nucifera L.	Naral	19°04.184'N; 72°54.213'E
54	Polyalthia longifolia	Ashoka	19°04.185'N; 72°54.207'E
55	Cocos nucifera L.	Naral	19°04.188'N; 72°54.242'E
×	Hyophorbe lagenicaulis	Bottle palm	19°04.188'N : 72°54.240'E
57	Tectona grandis	Sagwan	19°04.185'N: 72°54.194'E
52	Terminalic catapa L.	Deshibadam	19°04.185'N; 72°54.194'E
59	Cocos nucifera L.	Naral	19°04.186'N; 72°54.194'E
60	Polyalthia longifolia	Ashoka	72054.19/ 5
61	Cocos nucifera L.	Naral	19°04.184'N; 72°54.269'E Actilic 19°04.184'N; 72°54.269'E //C Principal 19°04.184'N; 72°54.269'E //C Principal 19°04.184'N; 72°54.269'E Vidyarthi Griha's
62	Hyophorbe lagenicaulis	Bottle palm	19'04.184'N; 72°54.269'E //C Principal
63	Cocos nucifera L.	Naral	19°04.184'N; 72°54.265 1/C Principles 19°04.185'N; 72°54.265 1/C Princ
64	Polyalthia longifolia	Ashoka	19°04.184'N ; 72°54.व्हेर्निक Vidyarthi Grins of Science & Technol
ME.	r-miu longifolia	180	

Polyalthia longifolia

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Green	Audit	2021	. 22
	Muuit	<b>ZUZ</b> 1	- 73

port			Addit 2021 - 23
	polyalthia longifolia	Ashoka	Comes - Comes
65	cocos nucifera L.	Naral	19°04.184'N; 72°54.276'E (Gostopid (Fact) )
66	Mangifera indica L.	Amba	19-04.184'N; 72°54.283'E 2 100 077
67	Cocos nucifera L.	Naral	19°04.185'N; 72°54.294'E
68	Tectona grandis	Sagwan	19°04.185'N; 72°54.194'E
69	<sub>Polyalthia</sub> longifolia	Ashoka	19°04.185'N; 72°54.194'E
10	Artocarpu. heterophyllus Lamk.	Phanas	19°04.185'N; 72°54.194'E
71	Cocos nucifera L.	Naral	19°04.185'N; 72°54.197'E
72	Moringa oleifera	Shevga	19°04.185′N; 72°54.195′E
73	Cocos nucifera L.	Naral	19°04.185'N; 72°54.199'E
74	Hyophorbe lagenicaulis	Bottle palm	19°04.185′N; 72°54.202′E
75	Polyalthia longifolia	Ashoka	19°04.185′N; 72°54.204′E
76	Ficus racemosa L.	Umber	19°04.185′N; 72°54.209′E
77	Programme and Control of the Control	Naral	19°04.185′N; 72°54.213′E
78	Cocos nucifera L.	Technology and the second	19°04.185′N; 72°54.218′E
79	Cocos nucifera L.	Naral	19°04.185′N; 72°54.223′E
80	Delonix regia	Gulmohar	19°04.185′N; 72°54.225′E
81	Cocos nucifera L.	Naral	19°04.185′N; 72°54.229′E
82	Polyalthia longifolia	Ashoka	19°04.185′N; 72°54.234′E
83	Hyophorbe lagenicaulis	Bottle palm	19°04.185′N; 72°54.237′E
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 nucijera L.	Naral	19°04.182'N; 72°54.247'E
89	Aegle marmelos	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 koenigli	Kadi Patta	19°04.184'N; 72°54.253'E
93		Sonmohar	19°04.190'N; 72°54.270'E
94	Peltophorum pterocarpum  Bombax ceiba L.	Katesavar	19°04.184'N; 72°54.249'E
95			19°04.184'N; 72°54.241'E
96	Cocos nucifera L.	Naral	19°04.192'N; 72°54.267'E
97	Peltophorum pterocarpum	Sonmohar	
98	Ficus benghalensis L.	Vad	19°04.192'N; 72°54.273'E Att
99	Azadirachta indica	Neem	19°04.192'N; 72°54.273 Principal 19°04.192'N; 72°54.273 Principal Pune Vidyarthi Griha's Pune Vidyarthi Griha's
1	Eucalyptus grandis	Neelgiri	19°04.192'N; 72°94.273 Pune Vldyarthi Grina's Pune Vldyarthi Grina's College of Science & Technology
		-12	College

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## vidyarthi Griha's College of Science & Technology

#### Green Audit 2021 - 23

(East)

MATERIA	FIF WILLIAM	
Azadirachta indica	Neem	19004 19300
olumeria obtusa L.	Chapha	19°04.193′N; 72°54.269′6
ancieg papaya	Pappayi	19°04.193′N; 72°54.268′
carico P	Neelgiri	19°04.192'N; 72°54.274'E
Eucalype arandis	The state of the s	19°04.192'N; 72°54.273'E
Eucalyptus 9		19°04.192'N; 72°54.273'E
Annona squarre		19°04.189′N; 72°54.255′E
Cocos nucifera C.		19°04.198'N; 72°54.264'E
Tectona grandis	Sagwan	19°04.200'N; 72°54.112'E
cocos nucifera L.	Naral	19°04.202'N; 72°54.243'E
cocos nucifera L.	Naral	19°04.202'N; 72°54.245'E
cocos nucifera L.	Naral	19°04.200'N; 72°54.206'E
Cocosifera indica L.	Amba	19°04.200'N; 72°54.203'E
	Naral	19°04.200'N; 72°54.176'E
		19°04.200'N; 72°54.189'E
The state of the s		
Cocos nucifera L.	Naral	19°04.200′N; 72°54.192′E
Ficus racemosa L.	Umber	19°04.200′N; 72°54.196′E
The state of the s	Naral	19°04.200'N; 72°54.184'E
A CONTRACTOR OF THE PROPERTY O	Naral	19°04.200'N; 72°54.169'E
	Naral	19°04.206'N; 72°54.282'E
	Karani	19°04.205'N; 72°54.279'E
		19°04.207'N; 72°54.223'E
Polyalthia longifolia	W. C. (200) (1900) (1)	19°04.208'N; 72°54.237'E
Peltophorum pterocarpum	Sonmohar	19°04.208'N; 72°54.249'E
Polyalthia longifolia	Ashoka	19-04.200 10, 72 3-12-10
	Azadirachta indica plumeria obtusa L. Carica papaya Eucalyptus grandis Eucalyptus grandis Annona squamosa Cocos nucifera L. Tectona grandis Cocos nucifera L. Cocos nucifera L. Mangifera indica L. Cocos nucifera L. Pocos nucifera L. Cocos nucifera L. Cocos nucifera L. Pocos nucifera L. Cocos nucifera L. Pongamia pinnata Polyalthia longifolia Peltophorum pterocarpum Polyalthia longifolia	plumeria obtusa L.  Carica papaya  Fucalyptus grandis  Fucalyptus grandis  Fucalyptus grandis  Fucalyptus grandis  Fucalyptus grandis  Annona squamosa  Cocos nucifera L.  Tectona grandis  Cocos nucifera L.  Cocos nucifera L.  Naral  Cocos nucifera L.  Naral  Naral  Naral  Cocos nucifera L.  Naral  Naral  Cocos nucifera L.  Naral  Naral  Cocos nucifera L.  Naral  Cocos nucifera L.  Naral  Naral  Cocos nucifera L.  Naral  Cocos nucifera L.  Naral  Cocos nucifera L.  Naral  Naral  Cocos nucifera L.  Naral  Naral  Sonmohar  Polyalthia longifolia  Peltophorum pterocarpum  Sonmohar

For Dharitree Enviro Research Centre malastos

Proprietor

Alchi 2 I/C Principal
Pune Vidyarthi Griha's College of Science & Technology

# objectives of the Green Audit:

the main objective of the green audit is to promote the Environment Management and temework of Environment Sustainability in compliance with the College Campus. The purpose of the audit is to identify, quantify, describe and conservative framework of Environment Sustainability in compliance with the applicable regulations, policies and standards.

the main objectives of carrying out Green Audit are:

- 1. To introduce and aware students to real concerns of environment and its sustainability
- 2. To secure the environment and cut down the threats posed to human health by analysing the pattern and extent of resource use on the campus.
- 3. To establish a baseline data to assess future sustainability by avoiding the interruptions in environment that are more difficult to handle and their corrections requires high cost.
- 4. To bring out a status report on environmental compliance.

#### Methodology:

Green audit of the campus is prepared by various methods including different tools such as destionnaire, physical inspection of the campus, observation and review of the documents, interviewing key persons and data analysis, observation and recommendations. The study covered the following areas to summaries the present status of environmentally sustainable management on the campus.

- Landscape and plantation
- Solid Waste management
- Sewage Waste management
- E-waste management
- **Energy Conservation**
- Rain water harvesting
- Environmental activities

Pune Vidyarthi Griha's College of Science & Technology

# ruce Vidyarthi Griha's College of Science & Technology

Green Audit 2021 - 23

Netrology



#### Climate data for Mumbal

-			-									
Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Year
36.3 (97.3)	35.3 (95.5)	37.6 (99.7)	39.5 (103.1)	42.8 (109.0)	39.6 (103.3)	33.5 (92.3)	33.2 (91.8)	34.5 (94.1)	37.6 (99.7)	36.7 (98.1)	34.5 (94.1)	42.8 (109.0
29.2 (84.6)	30.5 (86.9)	32.4 (90.3)	34.2 (93.6)	34.4 (93.9)	31.2 (88.2)	29.1 (84.4)	28.6 (83.5)	29.4 (84.9)	33.3 (91.9)	32.4 (90.3)	31.2 (88.2)	31.3 (88.3)
15.1 (59.2)	16.5 (61.7)	19.5 (67.1)	22.7 (72.9)	25.2 (77.4)	25.1 (77.2)	24.2 (75.6)	23.7 (74.7)	22,8 (73.0)	22,3 (72.1)	19.4 (66.9)	16.3 (61.3)	-1.1 (30.0)
6.7 (44.1)	8.3 (46.3)	16.5 (61.7)	18.6 (65.5)	20.2 (68.4)	21.1 (70.0)	19.6 (67.3)	18.9 (66.0)	19.2 (66.6)	18.6 (65.5)	16.5 (61.7)	12.4 (54.3)	6.7 (44.1)
3.6 (0.14)	1.0 (0.04)	1.3 (0.05)	2.0 (0.08)	21.3 (0.84)	502.4 (19.78)	1,015.7 (39.99)	584.2 (23.00)	336.3 (13.24)	95.3 (3.75)	12.9 (0.51)	2.0 (0.08)	2,578 (101.5)
0	0	0.	0	1	14	31	24	15	6	1	0	92
269.4	259.3	272.9	286.4	295.6	143.3	73.2	71.2	157.5	234.5	245.6	254.2	2,563.
	36.3 (97.3) 29.2 (84.6) 15.1 (59.2) 6.7 (44.1) 3.6 (0.14)	36.3 (95.5)  29.2 (30.5 (86.9)  15.1 (66.7)  6.7 (8.3 (44.1) (46.3)  3.6 (0.14) (0.04)  0 0	36.3 35.3 37.6 (97.3) (95.5) (99.7)  29.2 30.5 32.4 (84.6) (86.9) (90.3)  15.1 16.5 19.5 (59.2) (61.7) (67.1)  6.7 8.3 16.5 (44.1) (46.3) (61.7)  3.6 1.0 1.3 (0.14) (0.04) (0.05)  0 0 0 .	36.3 (95.5) (99.7) (103.1)  29.2 (84.6) (86.9) (90.3) (93.6)  15.1 (65.7) (67.1) (72.9)  6.7 8.3 (67.1) (72.9)  6.7 (44.1) (46.3) (61.7) (65.5)  3.6 (0.14) (0.04) (0.05) (0.08)  0 0 0 0 0	36.3 (95.5) (99.7) (103.1) (109.0)  29.2 (84.6) (86.9) (90.3) (93.6) (93.9)  15.1 (16.5 (19.5) (22.7 (72.9) (77.4)  6.7 (8.3 (16.7) (67.1) (72.9) (77.4)  6.7 (44.1) (46.3) (61.7) (65.5) (68.4)  3.6 (0.14) (0.04) (0.05) (0.08) (0.84)	36.3 (97.3) (95.5) (99.7) (103.1) (109.0) (103.3)  29.2 (84.6) (86.9) (90.3) (93.6) (93.9) (88.2)  15.1 (16.5 (19.5) (22.7 (25.2 (25.1 (77.4) (77.2))  6.7 (8.3 (16.7) (67.1) (72.9) (77.4) (77.2)  6.7 (44.1) (46.3) (61.7) (65.5) (68.4) (70.0)  3.6 (0.14) (0.04) (0.05) (0.08) (0.84) (19.78)  0 0 0 0 . 0 1 14	36.3 35.3 37.6 39.5 42.8 39.6 (103.3) (92.3)  29.2 30.5 32.4 34.2 34.4 31.2 29.1 (84.4)  15.1 16.5 19.5 22.7 25.2 25.1 24.2 (77.2) (67.1) (72.9) (77.4) (77.2) (75.6)  6.7 8.3 16.5 18.6 20.2 21.1 19.6 (44.1) (46.3) (61.7) (65.5) (68.4) (70.0) (67.3)  3.6 1.0 1.3 2.0 21.3 502.4 1,015.7 (0.14) (0.04) (0.05) (0.08) (0.84) (19.78) (39.99)  0 0 0 . 0 1 14 31	36.3 35.3 37.6 39.5 42.8 39.6 33.5 33.2 (97.3) (95.5) (99.7) (103.1) (109.0) (103.3) (92.3) (91.8)  29.2 30.5 32.4 34.2 34.4 31.2 29.1 28.6 (84.6) (86.9) (90.3) (93.6) (93.9) (88.2) (84.4) (83.5)  15.1 16.5 19.5 22.7 25.2 25.1 24.2 23.7 (75.6) (61.7) (67.1) (72.9) (77.4) (77.2) (75.6) (74.7)  6.7 8.3 16.5 18.6 20.2 21.1 19.6 18.9 (44.1) (44.3) (61.7) (65.5) (68.4) (70.0) (67.3) (66.0)  3.6 1.0 1.3 2.0 21.3 502.4 1,015.7 584.2 (0.14) (0.04) (0.05) (0.08) (0.84) (19.78) (39.99) (23.00)  0 0 0 . 0 1 14 31 24	36.3 35.3 37.6 39.5 42.8 39.6 (103.3) (92.3) 33.2 34.5 (97.3) (95.5) (99.7) (103.1) (109.0) (103.3) (92.3) (91.8) (94.1)   29.2 30.5 32.4 34.2 34.4 31.2 29.1 28.6 29.4 (84.6) (86.9) (90.3) (93.6) (93.9) (88.2) (84.4) (83.5) (84.9)   15.1 16.5 19.5 22.7 25.2 25.1 24.2 23.7 22.8 (59.2) (61.7) (67.1) (72.9) (77.4) (77.2) (75.6) (74.7) (73.0)   6.7 8.3 16.5 18.6 20.2 21.1 19.6 18.9 19.2 (44.1) (40.3) (61.7) (65.5) (68.4) (70.0) (67.3) (66.0) (66.6)   3.6 1.0 1.3 2.0 21.3 502.4 1.015.7 584.2 336.3 (0.14) (0.04) (0.05) (0.08) (0.84) (19.78) (39.99) (23.00) (13.24)   0 0 0 0 . 0 1 14 31 24 15	36.3 35.3 37.6 39.5 42.8 39.6 33.5 33.2 34.5 37.6 (97.3) (95.5) (99.7) (103.1) (109.0) (103.3) (92.3) (91.8) (94.1) (99.7) (29.2 30.5 32.4 34.2 34.4 31.2 29.1 28.6 29.4 33.3 (84.6) (86.9) (90.3) (93.6) (93.9) (88.2) (84.4) (83.5) (84.9) (91.9) (15.1 16.5 19.5 22.7 25.2 25.1 24.2 23.7 22.8 22.3 (59.2) (61.7) (67.1) (72.9) (77.4) (77.2) (75.6) (74.7) (73.0) (72.1) (67.1) (46.3) (61.7) (65.5) (68.4) (70.0) (67.3) (66.0) (66.6) (65.5) (66.6) (65.5) (0.04) (0.04) (0.05) (0.08) (0.84) (19.78) (39.99) (23.00) (13.24) (3.75) (3.7	36.3 35.3 37.6 39.5 42.8 39.6 (103.3) (92.3) (91.8) (94.1) (99.7) (98.1) (99.7) (99.7) (98.1) (99.7) (98.1) (99.7) (99.7) (98.1) (99.7) (99.7) (98.1) (99.7) (98.1) (99.7) (98.1) (99.7) (99.7) (98.1) (99.7) (98.1) (99.7) (98.1) (99.7) (98.1) (99.7) (99.7) (98.1) (99.7) (98.1) (99.7) (99.7) (98.1) (99.7) (98.1) (99.7) (99.7) (98.1) (99.7) (99.7) (99.7) (98.1) (99.7) (99.7) (98.1) (99.7) (99.7) (99.7) (99.7) (99.7) (98.1) (99.7)	36.3 35.3 37.6 39.5 42.8 39.6 (99.3) (95.5) (99.7) (103.1) (109.0) (103.3) (92.3) (91.8) (94.1) (99.7) (98.1) (99.7) (98.1) (99.7) (99.7) (98.1) (99.7) (99.

For Dharitree Enviro Research Centre

no dooles Proprietor

I/C Principal

Pune Vidyarthi Griha's

College of Science & Technology

location:

Neg 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 meters	
Population	Population (2020): 146056	
2 = 1	Male Population: 76084 Female Population: 69972	
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	

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

# vidyarthi Griha's College of Science & Technology

Green Audit 2021 - 23

13ble: Lepidopteran diversity observed in the College Campus

Common Name	Scientific Name	Family	Status
900000000000000000000000000000000000000	Graphium doson	Papillonidae	С
Common Jay Lime Butterfly	Papilio demoleus	Papilionidae	VC
Common Mormon	Papilio polytes	Papilionidae	vc
Common	Appias albina	Pieridae	c
Common Grass Yellow	Eurema hecabe	Pieridae	VC
Small Grass	Eurema brigitta	Pieridae	c
Yellow	Danaus chrysippus	Nymphalidae	VC
Plain Tiger Common Indian	Euploea core	Nymphalidae	vc
Crow	Neptis hylas	Nymphalidae	VC
Common Sailer Common Pierrot	Castalius rosimon	Lycaenidae	VC

C: Common ; VC: Very Common

For Dharitree Enviro Research Centre

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

# Pane Vidyarthi Griha's College of Science & Technology

Green Audit 2021 - 23

Family	: Avifaunal diversi Scientific Name	Name	IUCN Status	IWPA Assessment	Feeding Habit	Gnarkopar (East) DWelling
corvidae	Corvus splendens	House Crow	Least Concern ver 3.1	Schedule - V	Omnivorous	H STORES
	Corvus <sub>macrorhynchos</sub>	Jungle Crow	Least Concern ver 3.1	200	Omnivorous	R
gononotidae	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
Neropidae	Merops orientalis	Small Bee Eater	Least Concern ver 3.1	441	Insectivorous	R
Hakyonidae	Halcyon smyrnensis	White- throated Kingfisher	Least Concern ver 3.1	Schedule -IV	Piscivorous & Insectivorous	R
Columbidae	Streptopelia c':inensis	Spotted Dove	Not Assessed	Schedule -IV	Granivorous	R
	Columba livia	Blue Rock Pigeon	Least Concern ver 3.1	**	Granivorous	R
eiothrichidae	Turdoides striatus	Jungle Babbler	Least Concern ver 3.1	Schedule -IV	Omnivarous	R
Dicruridae	Dicrurus macrocercus	Black Drongo	Least Concern ver 3.1	Schedule - IV	Omnivorous	R
Sturnidae	Acridotheres tristis	Common Myna	Least Concern ver	Schedule - IV	Omnivorous	R
Muscicapidae	Copsychus saularis	Oriental Magpie- Robin	Least Concern ver 3.1	**	Insectivorous & Herbivorous	R
Cuculidae	Centropus sinensis	Greater Coucal	Least Concern ver 3.1	Schedule -IV	Carnivorous	R

For Dharitree Enviro Research Centre

malasky Proprietor

caecies wise count of trees

10	rical	Local Name	Family	Native/	Vegeta	No. of
	<sub>Botanical</sub> <sub>Name</sub>			Introd. / Nt.	tion type	individuals plants
يذو	lo	Bel	Rutaceae	Native	Deciduous	1
m	egle narmelos nnona	Sitaphal	Annonaceae	Nt	Evergreen	3
54	quamosu **caraus	Phanus	Moraceae	Native	Evergreen	1
A	<sub>eterophyllus</sub> <sub>zadirachta</sub>	Neem	Meliaceae	Native	Evergreen	2
14	<sub>lambax</sub> ceiba	Katesavar	Malvaceae	Native	Deciduous	1
В	ompus centra	Pappayi	Caricaceae	Native	Evergreen	1
0	arica papaya	Naral	Arecaceae	Native	Evergreen	47
	ocos nucifera	Gulmohar	Caesalpiniaceae	Nt	Evergreen	1
1	Delonix regiu Dypsis	Areca palm	Arecaceae	Nt	Evergreen	1
	lutescens Eucalyptus	Neelgiri	Myrtaceae	Nt	Evergreen	3
	grandis Ficus benghalensis	Vad	Moraceae	Native	Evergreen	1
1	Ficus racemosa	Umber	Moraceae	Native	Evergreen	3
3	Hyophorbe lagenicaulis	Bottle Palm	Arecaceae	Nt	Evergreen	7
4	Mangifera indica	Amba	Anacardiaceae	Native	Evergreen	4
5	Moringa oleifera	Shevga	Moringaceae	Native	Deciduous	10
6	Murraya koenigii	Kaddi patta	Rutaceae	Native	Deciduous	1
17	Neolamarckia codamba	Kadamb	Rubiacea	Native	Evergreen	1
18	Peltophorum pterocorpum	Sonmohar	Caesalpiniaceae	Introd	Evergreen	3
19	Plumeria obtusa	Chapha	Apocynaceae	Introd	Evergreen	1
	Polyalthia Iongifolia	Ashoka	Annonaceae	Native	Evergreen	14
21	Pongamia Pinnata	Karanj	Fabaceae	Native	Deciduous	11-10
и	Tectong grands	Sagwan	Verbenaceae	Native	Deciduous	
23	Terminalia cotopa	Deshibadam	Combretaceae	Native	Deciduous	n-Incinal
	- Pu	1	1		Total	Pune Vidyarthi Griha's one of Science & Techno

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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 vocationalization 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
- All classrooms are provided with ceiling fans for proper air circulation.

Pune Vidyarthi Griha's College of Science & Technology

## ENVIRONMENT AWARENESS PROGRAM



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Pure Vidyardy Onha's
College of Science & Technology
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# SOLID WASTE MANAGEMENT

Jiscientific disposal of solid waste

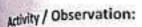
objective: -

No increase recycling level

pro reduce organic waste in landfills

3) To control air, water, soil pollution

a) production of green manure and vermicompost.



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 deparated 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 that a conversion manufacture is used for plants of college campus which enhances greenery that a conversion manufacture is used for plants of college campus which enhances greenery that a conversion manufacture is used for plants of college campus which enhances greenery that a conversion manufacture is used for plants of college campus which enhances greenery that a conversion manufacture is used for plants of college campus which enhances greenery that a conversion manufacture is used for plants of college campus which enhances greenery that a conversion manufacture is used for plants of college campus which enhances greenery that a conversion manufacture is used for plants of college campus which enhances greenery that a conversion manufacture is used for plants of college campus which enhances greenery that a conversion manufacture is used for plants of college campus which enhances greenery that a conversion manufacture is used for plants of college campus which enhances greenery that a conversion manu

	ANALYSIS	S Comeza or &
Simple Collection Date	ANALYSIS TEST REPORT	Gaykopai
Sampling Point	Canteen	S Completed
Simple Details	Drinking Water	18/03/2023
Sample Container	PVC Can	
	Sample	Quantity 5000 ml

9.	Parameter	Result	Unit	IS desirable		
NO.			3.114	Limit (As nor	Method	
1	pH	7.4		IS 10500) (As	method	
1	Colour	<5	CU	6.5 - 8.5	IS 3025 (Part-11): 2022	
3	Odour	Agreeable		5.0	IS 3025 (Part-4/4): 2021	
1	TDS			Agreeable	IS3025 (D	
	MAN TO SERVICE STATE OF THE SE	112	mg/lit	500	IS3025 (Part-5):2018:RA 2022	
5	Turbidity	<1.0	NTU		IS 3025 (Part-16):2023	
6	Ammonia	<0.5	- 2	1.00	IS 3025 (Part-10): 1984:RA 2022	
ale.		30.3	mg/lit	0.5	IS 3025 (Part 24/2	
7	Chlorides as CI	15.6	15.6 ma ##	IS 3025 (Part 34/2.2 & 2.3): 1988:RA 2019		
No.		mg/lit	250.00	IS 3025 (Part 32/2): 1988: RA		
8	Fluorides as F	0.8	mg/lit		1013	
9	Residual Chlorine	<0.2		1.0	APHA (24th Edition) 4500 F - D -	
10	Nitrate as NO <sub>3</sub>	10.4	mg/lit	0.2	IS 3025 (P-26/5):2021	
11	Total Alkalinity as	100000000000000000000000000000000000000	mg/lit	45.00	APHA (24th Edition) 4500- NO <sub>3</sub> -B	
12	Total Hardness as	48.37	mg/lit	200	IS 3025(Part23/8.1):1986: RA	
13		58.00	mg/lit	200.00	IS 3025(Part 21/5) 2000	
	Sulphate as SO4	3.6	mg/lit	200.00	IS 3025(Part21/5):2009: RA 2019	
14	Cyanide as CN			200.00	APHA (24th Edition) 4500 SO4 - E - 2022	
15	Calcium as Ca	<0.05	mg/lit	0.05	IS 3025 (Part27/sec1/4) :2021	
15	Magnesium as	14.43	mg/lit	75.00	IS 3025 (Part40/5):1991: RA 2019	
17	Total Ch	5.34	mg/lit	30.00	IS 3025 (Part 52 6) 2002 Co.	
-	Total Chromium	< 0.01	mg/lit	0.05	IS 3025 (Part 52-6):2003: RA 2019 IS 3025 (Part46/6):1994: RA 2019	

For Dharitree Enviro Research Centre

Molostor

	ANALYSIS TO	EST REPORT	Gharkops (Essa)
unple Collection Date	17/03/2023	Analysis Completed on	18/03/2023
inple Color	Canteen		16/03/2023
proping Point	Drinking Water		
anple Details	PVC Can	Sample Quantity	5000 ml

Parameter	Result	Unit	IS desirable Limit (As per IS 10500) (As	Method
DH .	7.4		6.5 - 8.5	IS 3025 (Part-11): 2022
Colour	<5	CU	5.0	IS 3025 (Part-4/4): 2021
Odour	Agreeable	•	Agreeable	IS3025 (Part-5):2018:RA 2022
TDS	112	mg/lit	500	IS 3025 (Part-16):2023
Turbidity	<1.0	NTU	1.00	IS 3025 (Part-10): 1984:RA 2022
Ammonia	<0.5	mg/lit	0.5	IS 3025 (Part 34/2.2 & 2.3): 1988:RA 2019
Chlorides as CI	15.6	mg/lit	250.00	IS 3025 (Part 32/2): 1988: RA 2019
Fluorides as F	0.8	mg/lit	1.0	APHA (24th Edition) 4500 F - D -
Residual Chlorine	<0.2	mg/lit	0.2	IS 3025 (P-26/5):2021
Nitrate as NO <sub>3</sub>	10.4	mg/lit	45.00	APHA (24th Edition) 4500- NO <sub>1</sub> -B
Total Alkalinity as	48.37	mg/lit	200	IS 3025(Part23/8.1):1986: RA
Total Hardness as	58.00	mg/lit	200.00	IS 3025(Part21/5):2009: RA 2019
Sulphate as 5O4	3.6	mg/lit	200.00	APHA (24th Edition) 4500 SO4 - E - 2022
Cyanide as CN	<0.05	mg/lit	0.05	IS 3025 (Part27/sec1/4) :2021
Calcium as Ca	14.43	mg/lit	75.00	IS 3025 (Part40/5):1991: RA 2019
Magnesium as	5.34	mg/lit	30.00	IS 3025 (Part 52-6):2003: RA 2019
Total Chromium	<0.01	mg/lit	0.05	IS 3025 (Part46/6):1994: RA 2019

For Dharitree Enviro Research Centre

Proprietor

Green Audit 2021 - 23

# AMBIENT NOISE LEVEL MONITORING

Date Of Monitoring: 03.02.2023

C- 81-	ocation: 50 Meter 1	e e e e e e e e e e e e e e e e e e e
Sr. No.	Time	Noise Levels in dB(A) Lea
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: -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

madaslus Proprietor

## AMBIENT AIR STATION

moling	06/01/2023	Analysis Completed On	(A)
of sampling of H.V.S.	Aprrox. 50 mel	ter from Main Gate	13/01/2023
eahon peral Distance	50 Meter from	Main Gate	
eptor Distance	1.5 Meters From	m Ground Level	
	26	Humidity (%)	
optatule 1 ch	09		45
Speed (km/hr)	806	Wind Direction (deg <sup>0</sup> )	W 280
uments Used	(GTI-177)	0), F.P.S.(APM - 550), G.P.S.(APM - 4	411) & Benzene Sample
	POL	IllTioner	

THE STATE OF THE S		POLLUTIO	NAL PARAMI	TERS
Parameters	Result	Units	NAAQS Limits	Method
PM <sub>18</sub>	68	μg/m³	100.00	IS 5182 (Part 23): 2006 (RA 2022)
PMus	33	μg/m³	60.00	EPA Quality assurance guidance document 2.12, based on CPCB- 2011
SO <sub>2</sub>	16	μg/m³	80.00	IS 5182 (Part 2): 2001 (RA 2022)
NO <sub>2</sub>	22	μg/m³	80.00	IS 5182 (Part 6): 2006 (RA 2022)
Ammonia (NH <sub>3</sub> )	<20	μg/m³	400.00	CPCB Guidelines For Measurement Of Ambient Air Pollutants Volume-I ,2011
0	0.97	mg/m³	04.00	IS 5182 (Part 10): 1999 (RA 2019)
tad as Pb	<0.1	μg/m³	01.00	EPA compendium method IO 3.5:2012
enzene (C <sub>6</sub> H <sub>6</sub> )	< 4	μg/m³	5.00	IS 5182 (Part 11) :2006 (RA 2022)
rsenic (As)	< 5	ng/m³	6.00	EPA compendium method IO 3.5:2012
ickel (Ni)	< 5	ng/m³	20.00	EPA compendium method IO 3.5:2012
tone (O <sub>1</sub> )	14	μg/m³	180.00	IS 5182 (Part 9): 1974 RA 2019
hto(a)Pyrene	< 0.1	ng/m³	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

3) NAAQS-National Ambient Air Quality Standards

4) Lower Detection Limit (NH<sub>3</sub> <20 μg/m³), (Pb <0.10 μg/m³), (C<sub>3</sub>H<sub>6</sub> <4 μg/m³) (As 650g/m³), (Ni <5 po/m³) (As 650g/m³),

(Ni <5 ng/m³), (Benzo(a)Pyrene < 0.1 ng/m³)
For Dharitree Enviro Research Centre

PM<sub>10</sub>-Particulate Matter of size < 10 μm, PM<sub>25</sub> - Particulate Matter of size < 2.5 μm</li>

# Maintenance and emergency plan of the building:

- There is wide and easy access to the college campus from the main road
- Staircases are provided with handrails.
- The main building and extension building structures are well maintained.
- o portable Fire Extinguishers are placed at prominent locations to handle minor fire.
- Good housekeeping practices are followed.

## observation:

- Many indoor plants were observed on 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup> floor of the college. Many flowering trees, which bloom in different seasons, in front of the large trees and along the periphery were planted.
- Tank top cover of all drinking water coolers should be locked and date of last cleaning and due date to be displayed.
- Speed Breaker on both side of Main gate and Display Board College Ahead No Honking are observed on main road in front of college gate.
- Fire Extinguishers are placed on every floor and in Labs. Suitable signage for fire/emergency exit and assembly points to be placed where required.

## Suggestion/Recommendations:

- Water recycling/sewage treatment plants may be installed and recycled water to be used for gardening/horticulture and toilet flushing etc.
- Energy meter may be provided separately for each department to monitor and control monthly electricity consumption and records to be maintained.
- All CFL may be replaced with LED lamps to save energy.
- Annual consumption target for paper may be given to the department as per requirement and shall be monitored with records to understand the impact of digitization in the college.
- Students may be involved to practice on reduction of electricity consumption and various ANDIKE methods to reduce paper consumption.
- Internal notices and communications can be done through e- mail/SMS to reduce paper Pune Vidyarthi Griha's College of Science & Technology Uses

For Dharitree Enviro Research Centre

malaste Proprietor

# Name altanagement:

## Fuper waste

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

### \*##S\$2

 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.
- Sio-degradable and non-biodegradable waste is generated labs, are also segregated and disposed of through Municipal Corporation

## Green initiatives:

- Trees are planted in the periphery of the ground and pathway sides in proper manner.
- The college has taken initiative for wide range of activities such as Swatch Bharat Campaign, poster competition, environment campaign for plantation, awareness on water conservation, essay competition and energy conservation to inculcate ecological awareness.

# 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.



## CERTIFICATE OF GREEN 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 conducted detailed Green Audit of their college and has submitted necessary data and credentials for scrutiny.

The activities and measures carried out by the college have been verified based on the report submitted and was found to be satisfactory.



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

Date of Issue: 10th June 2023

(Dr. Pramod Salaskar) Dharitree Enviro Research Centre

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## DHARITREE ENVIRO RESEARCH CENTRE

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Pune Vidyarthi Griha's College of Science & Technology

> GREEN AUDIT REPORT (2023 – 2025)



For Dharitree Enviro Research Centre

Maroker

Proprietor

#### Preface....

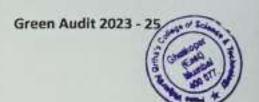
The term "Green" means eco-friendly or not damaging the environment. "Green Auditing", an umbrella term, is known by another name "Environmental Auditing". In auditing literature both the terms are being used interchangeably. To implement the green audit other important aspects such as objective of green audit, drivers of green audit, future scope, benefits, and advantages are necessary to understand.

Concept of green audit is not limited to the decorating the college campus but also corporate responsibility, with quality education keep college environment eco-friendly with its facilities.

Attempt has been made on that direction by landscaping and plantation, solid waste management, recycling of waste water, conservation of energy, water conservation, rainwater harvesting and minimum of usage of paper.

With keeping this view our campus is clean and fresh, we try to inculcate value of surrounding environment amongst the students through Environmental awareness activities like nature club, NSS", Quiz competition on environment,

Flower Arrangement, Gardening development and nursery management course, Mushroom cultivation course, Production of vermicomposting from solid waste and activity like Competition on Preparation of "Best from Waste", preparation of trenches and plantation of tree sapling, greenery of the campus is maintaining by the students and staff of College Because of the greenery and eco-friendly sustainable environment, college campus becomes more charming, refreshing and healthier. This increases efficiency of every element of the college.



#### 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," Green 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.

Adulta Coordinator,

Green Audit Report

#### Principal Message....

express my hearty wishes for success of this publication of 'Green 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 Green 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.

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## GREEN AUDIT REPORT COMMITTEE

(2021 - 2023)

Sr.No	Name	Designation	Committee Role	Signature
1	Dr. Ajay Kumar Pathak	I/C Principal	Coordinator	ALDIAC
2	Dr. Pramod Salaskar	Dharitree Enviro Research Centre	External Auditor	Wolaka
3	Prof. Meena Patel	Asst. Professor	Internal Auditor	fart
4	Prof. Jayshri Borhade	Asst. Professor	Internal Auditor	12 Rodade
5	Prof. Gaurav Singh	Asst. Professor	Internal Auditor	Cisingh
6	Prof. Archana Bhosale	Asst. Professor	Internal Auditor	B. Shosale





## CERTIFICATE OF GREEN 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 conducted detailed Green Audit of their college and has submitted necessary data and credentials for scrutiny.

The activities and measures carried out by the college have been verified based on the report submitted and was found to be satisfactory.

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

Date of Issue: 10th June 2023

(Dr. Pramod Salaskar) Dharitree Enviro Research Centre

History:

An education only can provide, the stability, and one could gain name and fame in the



#### 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



## Objectives of the Green Audit:

The main objective of the green audit is to promote the Environment Management and Conservation in the College Campus. The purpose of the audit is to identify, quantify, describe and prioritize framework of Environment Sustainability in compliance with the applicable regulations,

The main objectives of carrying out Green Audit are:

- 1. To introduce and aware students to real concerns of environment and its sustainability
- 2. To secure the environment and cut down the threats posed to human health by analyzing the pattern and extent of resource use on the campus.
- 3. To establish a baseline data to assess future sustainability by avoiding the interruptions in environment that are more difficult to handle and their corrections requires high cost.
- 4. To bring out a status report on environmental compliance.

### Methodology:

Green audit of the campus is prepared by various methods including different tools such as questionnaire, physical inspection of the campus, observation and review of the documents, interviewing key persons and data analysis, observation and recommendations. The study covered the following areas to summaries the present status of environmentally sustainable management on

- Landscape and plantation
- Solid Waste management
- Sewage Waste management
- E-waste management
- **Energy Conservation**
- Rain water harvesting
- Environmental activities

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

Tree No.	Botanical name	Local Name	THE COLLEGE CAMPUS	
1	Torminal		Lat./Long (Location)	
2	Terminalia catapa	Deshibadam	19-04.216'N; 72-54.240'E	
3	Polyalthia longifolia	Ashoka	19*04.216'N; 72*54.238'E	
4	Terminalia catapa	Deshibadam	19·04.216'N; 72·54.238'E	
100	Dypsis lutescens	Aareca Palm	19*04.215'N; 72*54.223'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	19°04.211'N; 72°54.233'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	19-04.204'N; 72-54.229'E	
11	Tectona grandis	Sagwan	19-04.194'N; 72-54.220'E	
12	Cocos nucifera L.	Naral	19·04.193'N; 72·54.219'E	
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		
17			19-04.193'N; 72-54.215'E	
18	Tectona grandis	Sagwan	19-04.193'N; 72-54.217'E	
19	Mangifera Indica L.	Amba	19°04.185′N; 72°54.213′E	
	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	19·04.183'N; 72·54.213'E	
22	Cocos nucifera L.	Naral	19:04.183'N; 72:54.216'E	
23	Tectona grandis	Sagwan	19°04.183'N; 72°54.219'E	
24	Cocos nucifera L.	Naral	19-04.183'N; 72-54.212'E	
25	Hyophorbe lagenicaulis	Bottle palm	19·04.183'N; 72·54.214'E	
26	Cocos nucifera L	Naral	19·04.182'N; 72·54.211'E	
27	Tectona grandis	Sagwan	19-04.182'N; 72-54.218'E	

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

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	19*04.183'N; 72*54.227'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	19°04.182′N; 72°54.218′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	Annona squamosa	Sitphal	19*04.184'N; 72*54.230'E
52	Tectona grandis	Sagwan	19°04.184′N; 72°54.225′E
53	Cocos nucifera L.	Naral	19 <sup>-</sup> 04.184'N; 72 <sup>-</sup> 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



# Pune Vidyarthi Griha's College of Science & Technology

## Green Audit 2023 - 25

Ÿ	58	Terminalia catapa L	I poster a	1 2004 40500
Į,	59		Deshibadam	19-04.185'N; 72-54.194'E
	60	The second property of the second sec	Naral	19-04.185'N; 72-54.194'E
	61	Polyalthia longifolia	Ashoka	19-04.186'N; 72-54.194'E
8	62	Cocos nucifera L	Naral	19°04.185'N; 72°54.197'E
	63	Hyophorbe lagenicaulis	Bottle palm	19-04.184'N; 72-54.269'E
1	64	Cocos nucifera L.	Naral	19-04.184'N ; 72-54.269'E
1	65	Polyalthia longifolia	Ashoka	19·04.184'N; 72·54.271'E
-		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 nucifero L.	Naral	19-04.185'N; 72-54.194'E
1	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
I	74	Cocos nucifera L.	Naral	19·04.185'N; 72·54.202'E
r	75	Hyophorbe lagenicaulis	Bottle palm	19·04.185'N; 72·54.204'E
r	76	Polyalthia longifolia	Ashoka	19°04.185'N; 72°54.209'E
r	77	Ficus racemosa L.	Umber	19·04.185'N; 72·54.213'E
T	78	Cocos nucifera L.	Naral	19·04.185'N; 72·54.218'E
H	79	Cocos nucifera L.	Naral	19·04.185'N; 72·54.223'E
-	80	The state of the s	Gulmohar	19·04.185'N; 72·54.225'E
	81	Delonix regia	Naral	19·04.185'N; 72·54.229'E
	82	Cocos nucifera L.	Ashoka	19·04.185'N; 72·54.234'E
	W SOL	Polyalthia longifolia	Bottle palm	19·04.185'N; 72·54.237'E
	83	Hyaphorbe lagenicaulis	Naral	19-04.185'N; 72-54.239'E
1	84	Cocos nucifera L.	Naral	19-04.185'N; 72-54.241'E
- 3	85	Cocos nucifera L		19-04.185'N; 72-54.243'E
1	86	Cocos nucifera L.	Naral	19*04.185'N; 72*54.247'E
1	37	Cocos nucifera L.	Naral	TO CONTRACTOR OF STREET



88	Cocos nucifera L.	Naral	19:04.182'N; 72:54.247'E
89	Aegle marmelos	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	Eucalyptus 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
112	Cocos nucifera L.	Naral	19°04.200'N; 72°54.176'E
113	Cocos nucifera L.	Naral	19-04.200'N; 72-54.189'E
114	Cocos nucifera L.	Naral	19°04.200'N; 72°54.192'E
115	Ficus racemosa L.	Umber	19-04.200'N; 72-54.196'E
116	Cocos nucifera L.	Naral	19-04.200'N; 72-54.184'E
117	Cocos nucifera L.	Naral	19-04.200'N; 72-54.169'E



## Pune Vidyarthi Griha's College of Science & Technology

#### Green Audit 2023 - 25

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

McCokUs

Proprietor

Table: Species wise count of trees

ir. No	Botanical Name	Local Name	Family	Native / Introd. / Nt.	Vegeta tion type	No. of individual s plants
1	Aegle marmelos	Bel	Rutaceae	Native	Deciduou s	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	Deciduou	1
6	Carica papaya	Pappayi	Caricaceae	Native	Evergreen	1
7	Cocos nucifera	Naral	Arecaceae	Native	Evergreen	47
8	Delanix 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	Native Evergreen	
12	Ficus racemosa	Umber	Moraceae	Native	Native Evergreen	
13	Hyophorbe lagenicaulis	Bottle Palm	Arecaceae	Nt	Nt Evergreen	
14	Mangifera indica	Amba	Anacardiaceae	Native	Evergreen	4
15	Moringa aleifera	Shevga	Moringaceae	Native	Deciduou s	1
16	Murraya koenigii	Kaddi patta	Rutaceae	Native	Native Deciduou	
17	Neolamarckia cadamba	The second name of the second name of	Rubiacea	Native	The state of the s	n 1
18	Peltophorum pterocarpum	Sonmohar	Caesalpiniaceae	Introd	Evergree	n 3
19	Plumeria	Chapha	Apocynaceae	_	Introd Evergree	
20	Polyalthia	Ashoka	Annonaceae	Nativ	Native Evergree	
21	Pongamia	Karanj	Fabaceae	Nativ	Native Deciduo	
22	Tectona	Sagwan	Verbenaceae		Native Deciduor	
23	Terminalia	Deshibada m	Combretaceae	Natio	ve Decidue	ou 6
					Total	122



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

Sr. No.	Family	Scientific Name	Common Name	IUCN Status	IWPA Assessment	Feeding Habit	Dwelling Status
1	Corvidae	Corvus splendens	House Crow	Least Concern ver 3.1	Schedule - V	Omnivorous	R
2		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
4		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	20	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
10	Sturnidae	Acridotheres tristis	Common Myna	Least Concern ver 3.1	Schedule - IV	Omnivorous	R
311	Muscicapidae	Copsychus saularis	Oriental Magpie- Robin	Least Concern ver 3.1	-	Insectivorous 8 Herbivorous	R
12	Cuculidae	Centropus sinensis	Greater Coucal	Least Concern ver 3,1	Schedule -IV	Carnivorous	R

For Dharitree Enviro Research Centre Proprietor

## Table: Lepidopteran diversity observed in the College Campus

Sr. No.	Common Name	Scientific Name	Family	Status
1	Common Jay	Graphium doson	Papilionidae	С
2	Lime Butterfly	Papilio 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



C: Common ; VC: Very Common



#### AMBIENT AIR STATION

Data Of					
Date Of sampling	16/05/2023	A	nalysis Comp	leted On	29/05/2023
Location of H.V.S.	Aprrox. 50	meter from	meter from Main Gate		
Lateral Distance	50 Meter from Main Gate				
Receptor Distance	1.5 Meters	From Grou	nd Level		
Ambient Temperature (°C)	-	29 Humidity (%)		and the second s	
Wind Speed (km/hr)	(	09	Wind Direction (d		W 296
Instruments Used	R.D.S.(APM- 460), F.P.S.(APM - 550), G.P.S.(APM - 411) ( (GTI-177)			(11) & Benzene Sample	
		POLLUTIO	NAL PARAME	TERS	
Parameters	Result	Units	NAAQS Limits		Method
PM <sub>m</sub>	72	μg/m³	100.00	IS 5182 (Part 2	23): 2006 (RA 2022)
PM <sub>xx</sub>	34	μg/m³	60.00		surance guidance 2, based on CPCB- 2011

			1	TOTAL CO. TOTAL
SO,	18	µg/m³	80.00	IS 5182 (Part 2): 2001 (RA 2022)
NO,	23	μg/m³	80.00	IS 5182 (Part 6): 2006 (RA 2022)
Ammonia (NH,)	<20	μg/m <sup>1</sup>	400.00	CPCB Guidelines For Measurement Of Ambient Air Pollutants Volume-I ,2011
со	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 IO 3.5:2012
Benzene (C <sub>s</sub> H <sub>s</sub> )	< 4	µg/m³	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 (O,)	13	μg/m³	180.00	IS 5182 (Part 9): 1974 RA 2019
Benzo(a)Pyrene	< 0.1	ng/m³	1.00	IS S182 (Part 12): 2004 (RA 2019)

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

Proprietor 19

<sup>2)</sup> PM $_{0}$ -Particulate Matter of size < 10  $\mu$ m, PM $_{25}$ - Particulate Matter of size < 2.5  $\mu$ m

<sup>3)</sup> NAAQS-National Ambient Air Quality Standards

Lower Detection Limit (NH, <20 μg/m²), (Pb <0.10 μg/m²), (C,H, <4 μg/m²), (As <5 ng/m²), (Ni <5 ng/m²), (Benzo(a)Pyrene < 0.1 ng/m²) For Dharitree Enviro Research Centre</li>



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AIMINENT	MODECLEVE	B S CT B LEW CO. IN LOCK
	INDISE LEVEL	MICHAELODING
		MONITORING

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

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

Manket

Proprietor

20

## Pune Vidyarthi Griha's College of Science & Technology

Green Audit 2023 - 25 Ghe

	ANALYSIS TI	ST 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	-	105087-18.5	IS 3025 (Part-11): 2022
2	Colour	<5	CU	5.0	IS 3025 (Part-4/4): 2021
3	Odour	Agreeable		Agreeable	Company of the Compan
4	TDS	Washington Street	2	2.7.20.00.00	IS3025 (Part-5):2018:RA 2022
100		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 CI	15.6	mg/lit	250.00	IS 3025 (Part 32/2): 1988: RA 2019
8	Fluorides as F	8.0	mg/fit	1.0	APHA (24° Edition) 4500 F - D -
9	Residual Chlorine	<0.2	mg/lit	0.2	R93825 (P-26/5):2021
10	Nitrate as NO <sub>3</sub>	10.4	mg/lit	45.00	APHA (24° Edition) 4500- NO <sub>3</sub> -B -
11	Total Alkalinity as	48.37	mg/lit	200	RP3825(Part23/8.1):1986: RA
12	FafaP Hardness as	58.00	mg/lit	200.00	RP3625(Part21/5):2009: RA 2019
13	Sdiphate 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	Mal Chromium	< 0.01	mg/lit	0.05	IS 3025 (Part46/6):1994: RA 2019

For Dharitree Enviro Research Centre

SOLID WASTE MANAGEMENT

#### Aim :-

- 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, failen 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.

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.

#### 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.
- 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

#### Green initiatives:

- Trees are planted in the periphery of the ground and pathway sides in proper manner.
- The college has taken initiative for wide range of activities such as Swatch Bharat Campaign, poster competition, environment campaign for plantation, awareness on water conservation, essay competition and energy conservation to inculcate ecological awareness.

### Access, Maintenance and emergency plan of the Building:

- There is wide and easy access to the college campus from the main road.
- Staircases are provided with handrails.
- The main building and extension building structures are well maintained.

- Portable Fire Extinguishers are placed at prominent locations to handle minor fire.
- Good housekeeping practices are followed.



#### Observation:

- Many indoor plants were observed on 1<sup>a</sup>, 2<sup>a</sup> and 3<sup>a</sup> floor of the college. Many flowering trees, which bloom in different seasons, in front of the large trees and along the periphery were planted.
- Tank top cover of all drinking water coolers should be locked and date of last cleaning and due date to be displayed.
- Speed Breaker on both side of Main gate and Display Board College ahead No Honking are observed on main road in front of college gate.
- Fire Extinguishers are placed on every floor and in Labs. Suitable signage for fire/emergency exit and assembly points to be placed where required.

## Suggestion/Recommendations:

- Water recycling/sewage treatment plants may be installed and recycled water to be used for gardening/horticulture and toilet flushing etc.
- Energy meter may be provided separately for each department to monitor and control monthly electricity consumption and records to be maintained.
- All CFL may be replaced with LED lamps to save energy.
- Annual consumption target for paper may be given to the department as per requirement and shall be monitored with records to understand the impact of digitization in the college.
- Students may be involved to practice on reduction of electricity consumption and various methods to reduce paper consumption.
- Internal notices and communications can be done through e- mail/SMS to reduce paper uses.

For Dharitree Enviro Research Centre



# PHOTOGALLERY





Rainwater Harvesting Unit



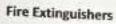
Compost Pit



Compost Pit









Plastic Waste Segregation Bin



Approach Road to college Green belt in the college premises



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# **PUNE VIDYARTHI GRIHA's**

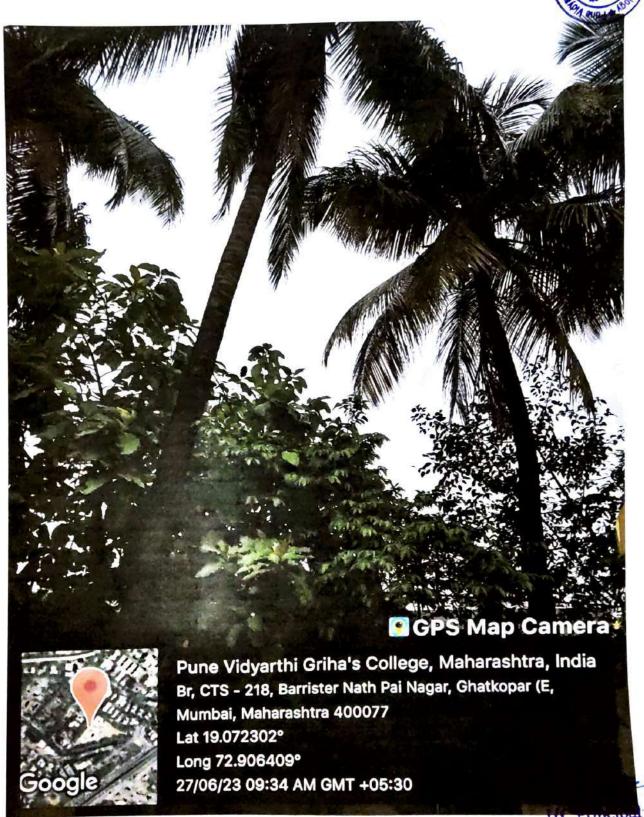


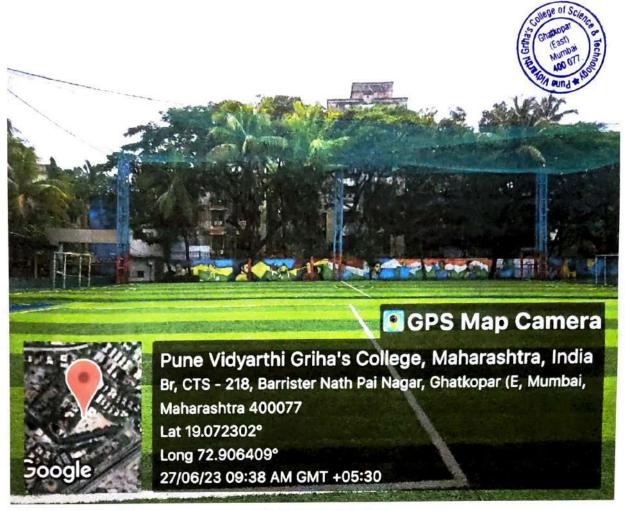
# COLLEGE OF SCIENCE & TECHNOLOGY

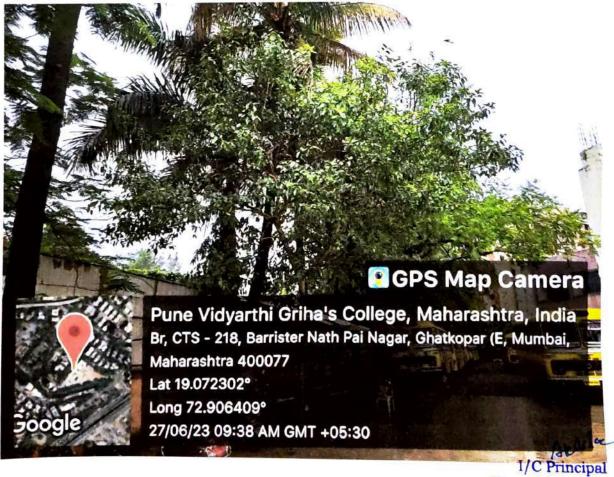
Affiliated to University of Mumbai

CTS. NO.218, Br. Nath Pai Nagar, Ghatkopar (East), Mumbai – 400077. Tel: 2506 97

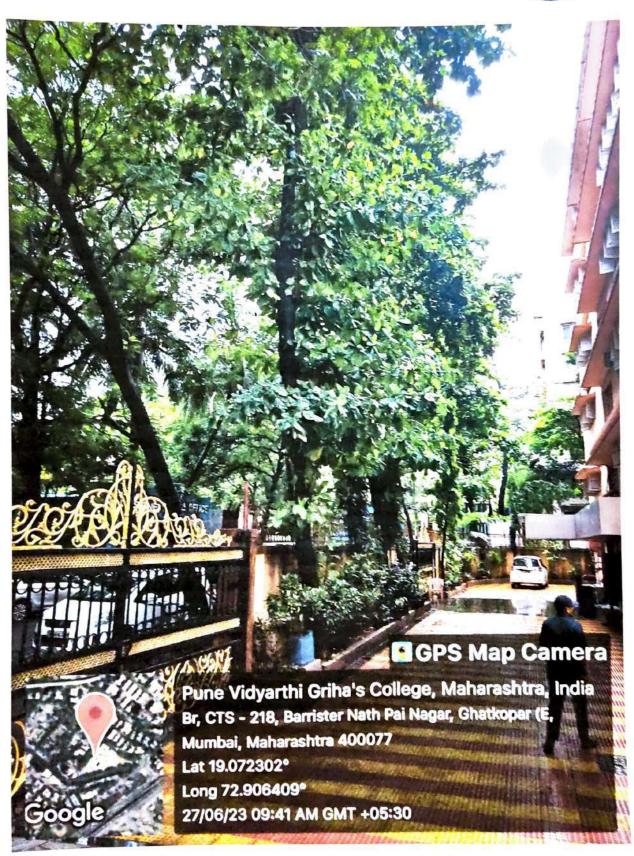




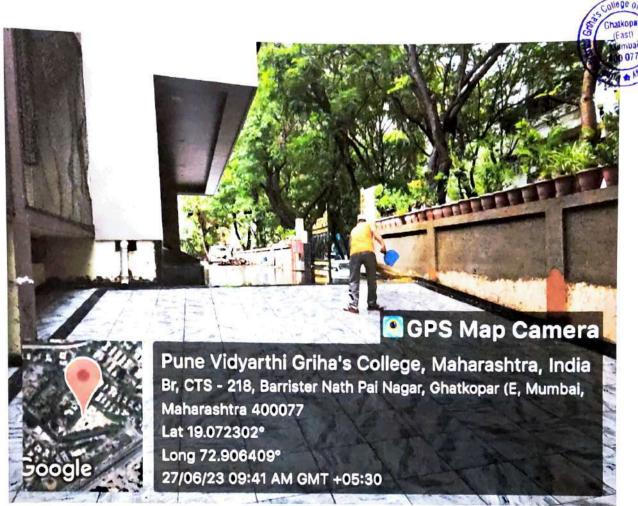


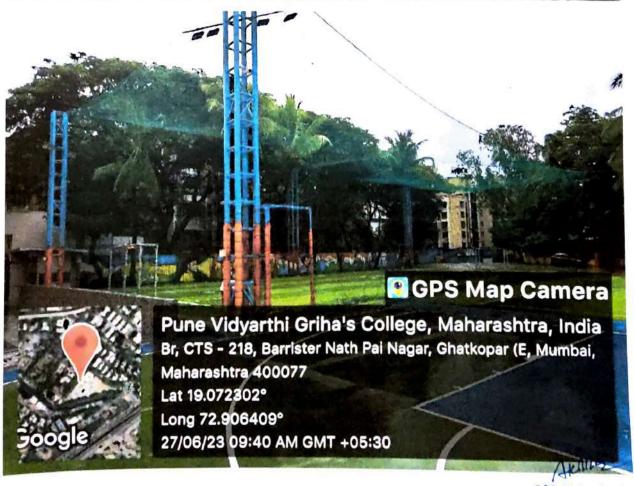


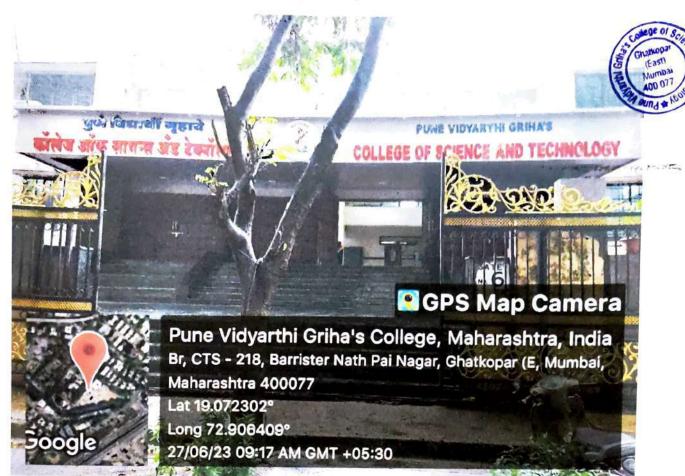


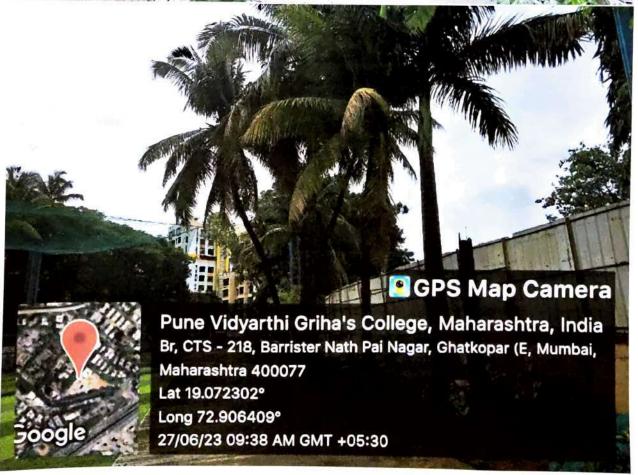


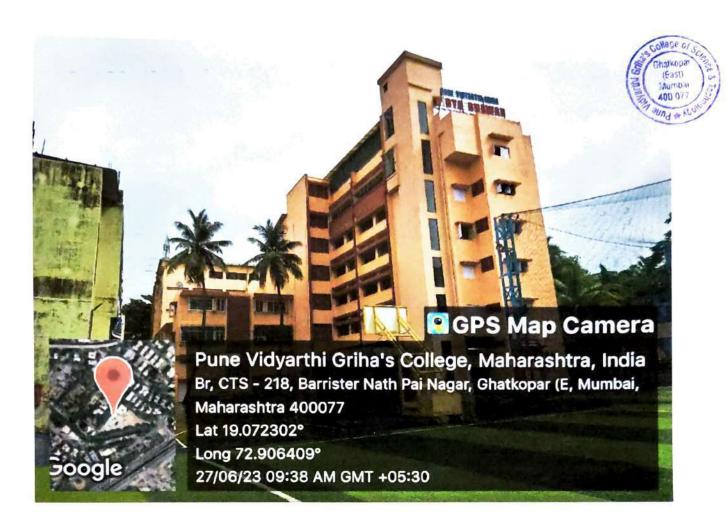
Pune Vidyarthi Griha's College of Science & Technology



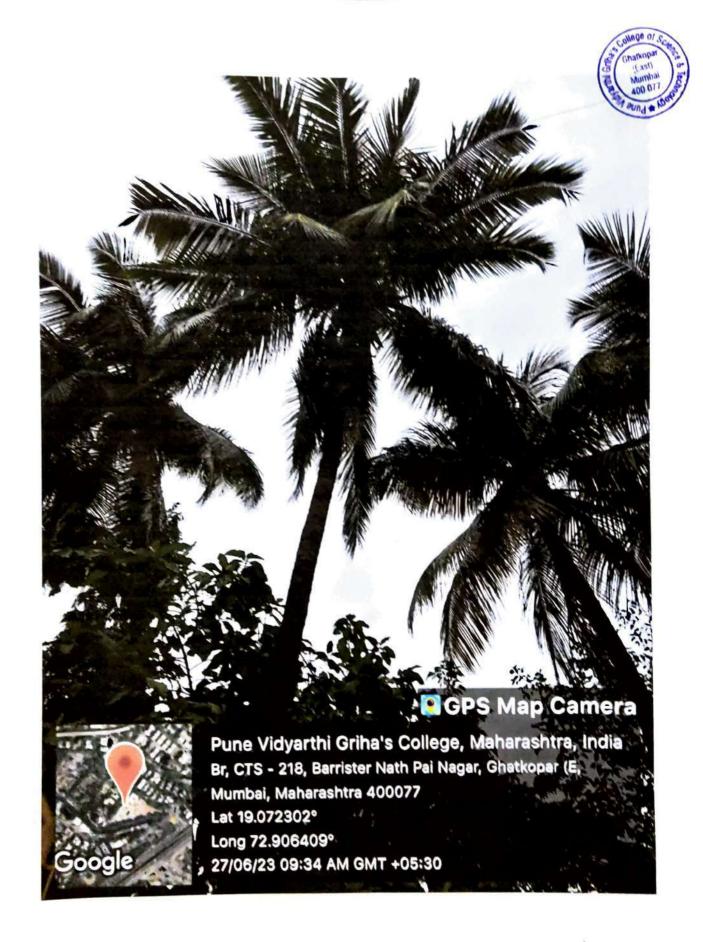


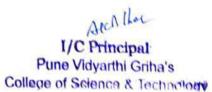












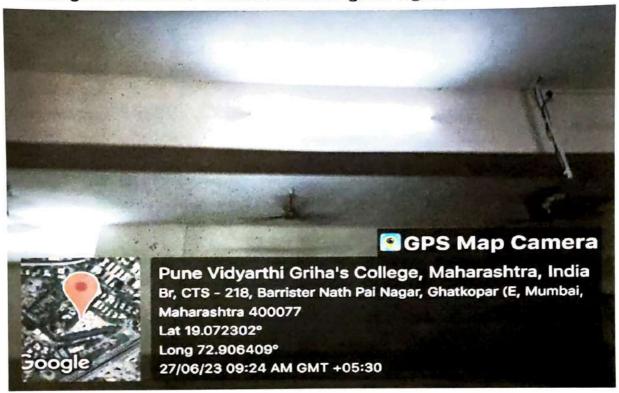
#### **PUNE VIDYARTHI GRIHA's**

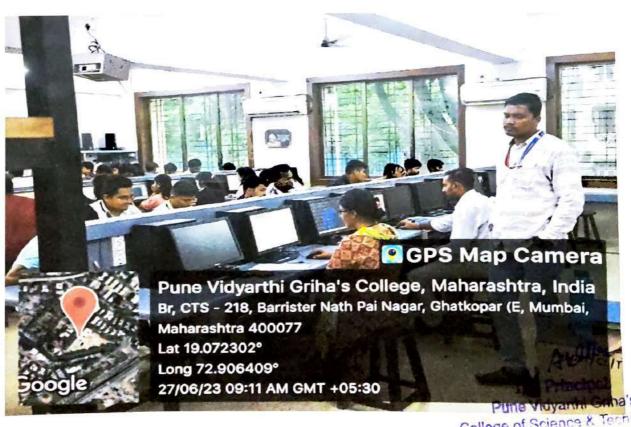
# COLLEGE OF SCIENCE & TECHNOLOGY

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CTS. NO.218, Br. Nath Pai Nagar, Ghatkopar (East), Mumbai – 400077. Tel: 2506 9118 Website: www.pvgcst.in. Email: pvgcst@yahoo.com

# Illuminating a Sustainable Future: Harnessing LED Lights for a Greener Campus





College of Science & Technology

Mumbai 400 077





#### PUNE VIDYARTHI GRIHA'S

# **COLLEGE OF SCIENCE & TECHNOLOGY**

Affiliated to University of Mumbai (College Code: 866)

CTS No : 218, Br. Nath Pai Nagar, Ghatkopar (East), Mumbai - 400 077 Tel. : 022-2506 9118 Email: pvgcst@yahoo.com • Website: www.pvgcst.in

# Details of the Activities conducted for Environmental Promotional activities conducted beyond the campus

A.Y. 2019-2020

Sr. No.	Name Of the Activity	Date of the activity conducted	Faculty in charge	Venue
1	7 Days NSS Residential Camp	09/12/2019 To 15/12/2019	Prof. Gaurav Singh	Village Makunsar (Sapahale), District Palghar

Adolha





#### PUNE VIDYARTHI GRIHA'S

# COLLEGE OF SCIENCE & TECHNOLOGY

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# Details of the Activities conducted for Environmental Promotional activities conducted beyond the campus

A.Y. 2021-2022

Sr. No.	Name Of the Activity	Date of the activity conducted	Faculty in charge	Venue
1	Beach Cleaning Day	26th September, 2021	Prof. Meena Patel	Versova Beach
2	Beach Cleaning Day	2nd October, 2021	Prof. Gaurav Singh	Versova Beach
3	World Environment Day	5th June, 2021	Prof. Meena Patel	Google Meet Online
4	7 Days NSS Residential Camp	21/03/2022 To 27/03/2022	Prof. Gaurav Singh	Village Makunsar (Sapahale), District Palghan



## 7 Days NSS Residential Camp

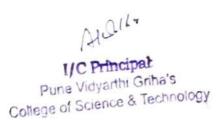
Place: At Village Makunsar (Sapahale), District Palghar

Date: 09/12/2019 To 15/12/2019

No. Of Volunteers: 25

During the 7 Days Residential Camp at Village Makunsar (Sapahale), District Palghar, from 09/12 2019 to 15/12/2019, a group of 25 dedicated volunteers actively engaged in various activities aimed at community development and social welfare. The camp began with orientation and cleaning of the camp areas, followed by observation of the village. Throughout the camp, the volunteers participated in exercises, yoga, and cleaning initiatives, focusing on public spaces like the temple premises, nearby lake area, and the Gram Panchayat premises. They also contributed to unblocking the canal connected to the lake and conducted beach cleaning activities. The camp featured a street play and rally to raise awareness about organ donation, along with a Bhajan Sandhya at the temple. A visit to a government school allowed volunteers to interact with students and engage in activities like dancing, singing, drawing, and assisting in voter ID registration. Voter ID and Ayushman Bharat registration, along with street play practice, were conducted on separate days. The camp concluded with a powerful street play on blood donation and facilitating Ayushman Bharat registration. Overall, the camp proved to be a successful endeavor, promoting community engagement and addressing important social causes in Village Makunsar.







#### **BEACH CLEANING DAY**

On September 26, 2021, the DLLE department and NSS Unit of Pune Vidyarthi Griha's College of Science and Technology joined forces to organize a Beach Cleaning Day at Versova Beach. The event took place in celebration of World Rivers Day. Prof. Meena Patel inaugurated the event, and students, volunteers, and NSS unit members actively participated in the beach cleaning activities with great enthusiasm. Diligently working for several hours, the team successfully cleaned the beach, demonstrating their dedication to environmental conservation. Refreshments were provided to all participants, and memorable pictures were taken to capture the event's spirit.

Additionally, on October 2, 2021, the NSS Unit conducted another Beach Cleaning Activity at Versova, aligning with their goal of raising awareness about marine pollution and reducing garbage and plastic in the ocean. The collected garbage was handed over to the BMC workers for proper processing. These combined efforts reflect the college's commitment to promoting a clean and sustainable environment.





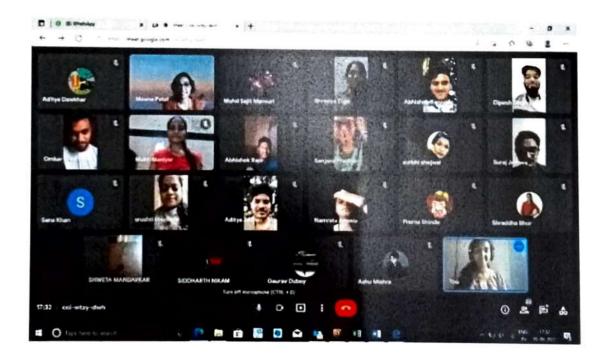






#### **World Environment Day**

On June 5, 2021, the DLLE Department of PVG College of Science and Technology organized an activity in commemoration of World Environment Day. The primary objective of this activity was to raise awareness about the critical role the environment plays in our lives. The participants of this activity were referred to as T.R.E.E.N.A.G.E.R.S. The event commenced with an introduction about the environment and the significance of World Environment Day. The participants shared insights on the positive impacts of the environment and shed light on various environmental disasters that have occurred in the past two years, some of which were natural while others were caused by human errors. Additionally, participants shared simple yet effective tips to promote tree growth and preserve the environment. The activity concluded with a powerful slogan, "Join Hands to Save the Environment."









# 7 Days NSS Residential Camp

Place: At Village Makunsar (Sapahale), District Palghar

Date: 21/03/2022 To 27/03/2022

No. Of Volunteers: 25

During the 7 Days Residential Camp at Village Makunsar (Sapahale), District Palghar, from 21/03/2022 to 27/03/2022, a group of 25 dedicated volunteers engaged in various activities aimed at community development and social welfare. The camp began with an orientation and cleaning of nearby camp areas, followed by observation of the village on the first day. Subsequent days included exercises, yoga, and cleaning of public spaces such as temple premises, the nearby lake area, and the Gram Panchayat premises. The volunteers also worked on unblocking the canal connected to the lake and participated in beach cleaning activities. On the fourth day, they organized a street play and rally to raise awareness about organ donation, along with a Bhajan Sandhya at the temple. The fifth day involved a visit to a government school where volunteers engaged in activities like dancing, singing, drawing, and assisting in the voter ID registration process for the villagers. The sixth day focused on voter ID and Ayushman Bharat (Health Card) registration, as well as practicing street plays. The camp concluded on the seventh day with a street play promoting blood donation and facilitating Ayushman Bharat registration. Overall, the camp was a successful endeavor, fostering community engagement and promoting social causes in Village Makunsar.





Haller



