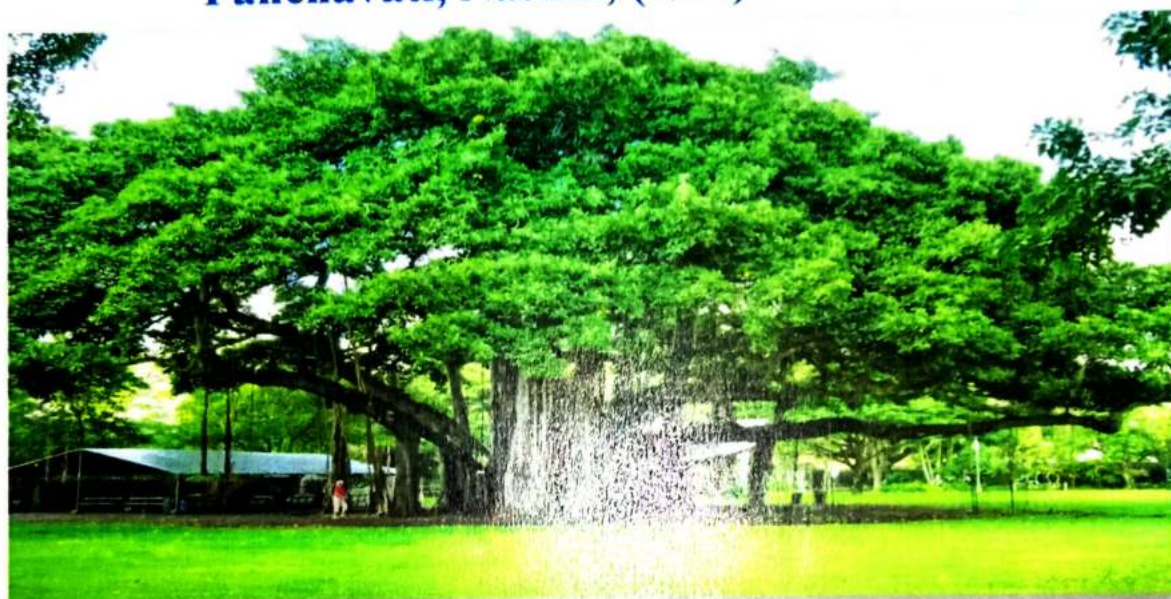


GREEN AND ENVIRONMENT AUDIT REPORT (Year 2018 to 2021)

**Mahatma Gandhi Vidyamandir's
Loknete Vyankatrao Hiray Arts Science & Commerce College,
Panchavati, Nashik, (M.S) India**



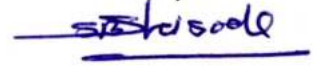
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College Building



Google map of college campus



The rapid urbanization and economic development at local, regional and global level has led to several environmental and ecological crises. Eco campus is a concept rooted to all over the world to make them sustainable because of their mass resource utilization and waste discharge in to the environment. On this background it becomes essential to adopt the system of the Green Campus for the institute which will lead for sustainable development.

Mahatma Gandhi Vidyamandir's Loknete Vyankatrao Hiray Arts Science & Commerce College Panchavati, Nashik, (M.S) India is deeply concerned and unconditionally believes that there is an urgent need to address these fundamental problems and reverse the trends. Being a premier institution of higher learning, the college has initiated '**The Green Campus**' program three years back that actively promote the various projects for the environment protection and sustainability.

The purpose of the audit was to ensure that the practices followed in the campus are in accordance with the Green Policy adopted by the institution. The methodology includes: preparation and filling up of questionnaire, physical inspection of the campus, observation and review of the documentation, interviewing key persons, data analysis, measurements and recommendations. It works on the several facets of '**Green Campus**' including **Water Conservation, Tree Plantation, Waste Management, Paperless Work, Alternative Energy** and **Mapping of Biodiversity**. With this in mind, the specific objectives of the audit are to evaluate the adequacy of the management control framework of environment sustainability as well as the degree to which the departments are in compliance with the applicable regulations, policies and standards. It can make a tremendous impact on student's health and learning college operational costs and the environment. The criteria, methods and recommendations used in the audit are based on the identified risks.

Green audit is assigned to the criterion VII of National Assessment and Accreditation Council (NAAC) which is a self-governing organization of India and it declares the institutions as Grade categories, viz. A, B, C and D, denoting Very good, Good, Satisfactory and Unsatisfactory levels respectively.

Green Audit can be defined as systematic identification, quantification, recording, reporting and analysis of components of environmental diversity. The '**Green Audit**' aims to analyze environmental practices within and outside the college campus, which will have an impact on the eco-friendly ambience. It was initiated with the motive of inspecting the work conducted within the organizations whose exercises can cause risk to the health of inhabitants and the environment. Through Green Audit, one gets a direction as how to improve the condition of environment and there are various factors that have determined the growth by carrying out Green Audit.

It is well known that educational institutions consume resources like water, electricity; Forest products and generates wastes like many industries. Establishment and operating of educational institute are not covered by any of the environmental laws in India. As a result, the importance of making the educational institute operate with self-consciousness in the utility of resources inside the campus is least understood. Eco friendly campus is a concept implemented in many educational institutes across the globe to make them sustainable because of their mass consumption of resource & creation of waste. Waste minimization plans inside the educational institute for solid and wastewater is now mandatory to maintain the cleanliness inside the campus. To find out the environmental performance of the educational institutions and to analyze the possible solutions for converting the educational campus as eco-campus the conduction of Green Auditing of institution is essential.

"Mahatma Gandhi Vidyamandir's, Loknete Vyankatrao Hiray Arts, science and Commerce College, Panchavati, Nashik-03 is a leading educational institution in Nashik (M.S) India. Established in the year 1971, at the banks of River Godawari. The College is affiliated to the Savitribai Phule Pune University, Pune and recognized under 2(f) and 12B of UGC Act.

The college has been re-accredited "A Grade" by NAAC in 2nd cycle and has been awarded " Best College Award" by Savitribai Phule Pune University, Pune.

The college has several P.G Departments along with the UG courses, PG Courses and Research centers. The College offers 25 subjects at special level UG and 14 at PG level. PG courses in English, Psychology, History, Economics, Geography, Commerce, Botany, Zoology, Electronic Science, Organic Chemistry, Inorganic Chemistry, Physical Chemistry, Mathematics and B.Voc are conducted in the college. The college also administers Research centers in Botany, Zoology, Chemistry, Psychology, Electronic Science and Commerce. The college conducts PG Diploma in Industrial Psychology and Certificate Courses in English for Business, Modi-Script, Tourism, Event Management and Soft Skill Development. The college also functions as a study center for the various courses conducted by Yashwantrao Chavan Maharashtra Open University, Nashik, M.S.

The College has a well maintained Library, having more than 73878 books with latest magazines and research journals and articles. The library is well equipped with Audio Visual Aids and it is computerized. Special scheme for poor students i.e. Poor Boys Book Bank Facility is implemented consisting more than 3000 books, which are given to the students for the every academic year. The college library has a linkage with DELNET (Developing Library Network), N-List (National Library and Information Services Infrastructure for Scholarly Content) . The college library has the Internet Library borrowing facility with YCMOU, Nashik. Since the college houses YCMOU study center, our sister institute like Pharmacy College and Institute of Management are also linked with the Library. The college has Students Grievance Committee, Anti Ragging Committee, Students Council, Students Welfare Scheme, Insurance Policy Schemes, Earn and Learn Scheme, Alumini Association, Placement Cell, Tours and Excursions. The College has established computer centre for Tribal students. '**Bhartiya Vidya Bhavan**' provides free of cost computer literacy to slow learner and tribal students.

The teaching staff of the college is well qualified; several faculty members are, M. Phil, Ph.D, SET and NET qualified. The staff is consistently busy in several research activities along with consultancy activities. Many of them are working with Minor and Major research projects funded by UGC and Savitribai Phule Pune University, Pune.

It is necessary to mention here that the students who seek admission in this college are mostly from the tribal area, the backward and the minority communities. It has been a rich experience of working

together, reflecting together and identifying its strengths and weaknesses. This journey of reflecting on the foot prints left in the previous years has given us insight to think through the path ahead to realize the goal of actualizing the potential of Loknete Vyankatrao Hiray Arts, Science and Commerce College, Panchavati, Nashik, M.S through benchmarking ourselves with institutions of repute at the state and national level. A cautious effort has been taken to involve a broader heterogeneous group of faculty members including younger generation in the preparation of this SSR, to ensure quality sustenance and enhancement to lead the college into the future.

a. VISION

“Bahujan Hitay Bahujan Sukhay”, the path shown by our founder father, **Late Karmaveer Bhausaheb Hiray**, a Great Educationist, Motivates us to Strive for academic Excellence by Exploring the Potentialities of economically weaker Sections of the Society by providing them opportunities to face Global challenges.

b. MISSION

To reach out to the poor, needy downtrodden, segregated and deprived, to uplift them by giving new directions, heights and aspirations through education.

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:

- 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 bring out a status report on environmental compliance.
- To introduce and make students aware of real concerns of environment and its sustainability.
- To establish a baseline data to assess future sustainability by avoiding the interruptions in environment that are more difficult to handle and their corrections require high cost.
- Try to follow the guidelines given in past audit.

In order to perform green audit, the methodology included different tools such as preparation of questionnaire, physical inspection of the campus, observation and review of the documentation, interviewing key persons and data analysis, measurements and recommendations. The study covered the following areas to summaries the present status of environment management in the campus:

- Green area management
- Waste management
- Water management
- Energy conservation
- E-waste management

a. Water Use

This Key indicator focus water consumption, water sources, irrigation, storm water, and fixtures. A water audit is an on-site survey and assessment to determine the water use and hence improving the efficiency of its use.

Observations

The study observed that, Water supply for toilets, laboratories and gardening purpose will be available from underground bore and well. For drinking water college has Aqua Fresh Technology water purifier system. The purifier has 55 L./Day capacity. During the survey, no loss of water is observed, neither by any leakages nor by over flow of water from overhead tanks. The data collected from all the departments is examined and verified. On an average the total use of water in the college is 9,000L/day, which include 2000L/day for domestic purposes, 3,000 L./day for gardening and 4,000 L/day for different laboratories. Drip irrigation system is used for gardening purpose to save water. About 1.5 m³ of domestic and 0.5 m³ of Laboratory waste water were generated per day. The waste water generated from Laboratory was stored and treated before disposal. Whereas domestic waste was dump for soak pit purpose.

Drinking water analysis report:

Sr.No.	Parameter	Result	Acceptable Limit as per IS 10500: 2012
Organo leptic & Physical Parameters			
1.	Color	1	Max. 5
2.	Odor	Agreeable	Agreeable
3.	pH Value	7.56	6.5 to 8.5
4.	Turbidity	0.4	Max. 1
5.	Total Dissolved Solids	52	Max. 500
6.	Calcium (as Ca)	1.6	Max. 75
7.	Chloride (as Cl)	6.5	Max. 250
8.	Fluoride (as F)	0.56	Max. 1
9.	Iron (as Fe)	BDL(DL:0.06)	Max. 0.3
10.	Magnesium (as Mg)	0.97	Max. 30
11.	Nitrate (as NO ₃)	2.9	Max. 45
12.	Sulphate (as SO ₄)	5.2	Max. 200
13.	Total Alkalinity (as CaCO ₃)	23	Max. 200
14.	Total Hardness (as CaCO ₃)	8	Max. 200
Bacteriological Analysis			
15.	<i>E. coli</i>	Absent	Not Detectable
16.	Total Coliforms	Absent	Not Detectable

Water Purifier System:

a) Recommendations:

It is suggested that if the management is looking forward to overall environmental sustainability then a Effluent Treatment Plant (ETP) maybe installed. This would treat & recycle the waste water within the campus and this treated waste water can further be used either for flushing, thus further reducing fresh water requirement of the campus by 30 – 40 % of the total. This type of Effluent treatment plant can be used for environmental student's project course.

Ensure that all cleaning products used by college staff have a minimum detrimental impact on the environment, i.e. are biodegradable and non-toxic, even where this exceeds the Control of Substances Hazardous to Health (COSHH) regulations. To prepare year wise water consumption report, it helps in to minimize the water consumption and recycle of water.



b. Energy Use and Conservation

This indicator addresses energy consumption, energy sources, energy monitoring, lighting, appliance, natural gas and vehicles. Energy use is clearly an important aspect of campus sustainability and thus requires no explanation for its inclusion in the assessment.

a) Observations

Energy source utilized by all the departments and common facility center is electricity only. Total energy consumption is determined as 37kWh/month by major energy consuming equipment. College has provided class rooms and laboratories with proper light and ventilation provision for energy conservation. Earth Leakage Circuit Breaker has been installed at various locations on the campus to prevent current leakage and protect other electrical installations. College has placed notice boards for employees and students to off the lights and fans whenever not needed also Conducted Internal Energy Audit Regular maintenance of electrical appliances to save the energy consumption.

Collage has used of Light Emitting Diode (LED) and Compact Fluorescent Lights (CFL) bulbs which have revolutionized energy-efficient lighting. Approximately 91LED tube light, 2 LED Halogen was counted during survey.

Equipment like Computers is used with power saving mode. The electricity was shut down after occupancy time as one of the practices for energy conservation.





Solar System Details: -

Total Solar Panel:48, Power generated per panel: 320W. Total Power generation by 48 Panel:15KW,Energy generation in terms of Units: 1KW = 5Unit/day, So using 48-panel college can generate $5 \times 15 \times 30 = 2250$ Unit/month. As college shifted in new building in August 2018 so the Solar system is currently not in working.



PHOTOVOLTAIC CELLS

Recommendations

- Support renewable and carbon-neutral electricity options on any energy- purchasing consortium, with the aim of supplying all college properties with electricity that can be attributed to renewable and carbon-neutral sources.
- Appreciate that it is preferable to purchase electricity from a company that invests in new sources of renewable and carbon-neutral electricity.
- More improvement is required to improve their campus lighting, if possible they can convert to solar lights.
- Start Solar system.
-

c. Waste Generation

This indicator addresses waste production and disposal of different wastes like paper, food, plastic, biodegradable waste, glass, dust etc. and recycling. Furthermore, solid waste often includes wasted material resources that could otherwise be channeled into better service through recycling, repair and reuse. Solid waste generation and management is a burning issue. Unscientific handling of solid waste can create threats to everyone. The survey focused on volume, type and current management practice of solid waste generated in the campus. The different solid wastes collected are as mentioned above.

a) Observations

The total solid was be collected in the campus is 10kg/day. Waste generated from dead organic matter is a major solid waste in the campus. The waste is segregated at source by providing separate dustbins for Bio-degradable and Non Bio-degradable waste. Segregation of chemical waste generated in laboratories is also practiced.

Single sided used papers are reused for writing and printing in all departments. Important and confidential reports/ papers are sent for recycling after completion of their preservation period. Very less plastic waste (0.3kg/day) is generated by some departments, office, garden etc. but it is neither categorized at point source nor sent for recycling. Metal waste and wooden waste is stored and given to authorized scrap agents for further processing. The tree droppings are sent for composting plant.

b) Recommendations

- Reduce the absolute amount of Organic waste that is produced from college.
- Make full use of all recycling facilities provided by Nashik Municipal Corporation and private suppliers including glass, cans, white colored and brown paper, plastic bottles, batteries, print cartridges, cardboard and furniture.
- Provide sufficient, accessible and well-publicized collection points for recyclable waste, with responsibility for recycling clearly allocated.
- Develop biogas plant to recycle biodegradable waste.
- Introduce Laboratory of Green Chemistry.

d. E-Waste Generation

E-waste can be described as consumer and business electronic equipment that is near or at the end of its useful life. This makes up about 5% of all municipal solid waste worldwide but is much more hazardous than other waste because electronic components contain cadmium, lead, mercury and Polychlorinated biphenyls (PCBs) that can damage human health and the environment.

a) Observations

E-waste generated in the campus is very less in quantity. The college has total of 36-Computers& 02-laptops and 07printers, 01-xerox machine&01-Scanner in working condition. The cartridges of laser printers are refilled outside the college campus. The E- waste and defective item from computer laboratory is being stored properly.

Electronic waste material such as Computer, Computer Peripherals, Printer, Scanner etc. can be handed over to the following organization/department, where they will be reused safely to protect our environment.

1. Dept. of Physics & Electronics, Loknete Vyankatrao Hiray Arts, science and Commerce College, Panchavati, Nashik who Conduct "Computer Hardware Course" for science students

b) Recommendations

- Recycle or safely dispose of white goods, computers and electrical appliances.
- Use reusable resources and containers and avoid unnecessary packaging where possible.
- Always purchase recycled resources where these are both suitable and available.
- Electronic waste material such as Computer, Computer Peripherals, Printer, Scanner etc. can be handed over to the recognized organization where they will be reused and recycled safely to protect our environment.

Green Area

This includes the plants, greenery and sustainability of the campus to ensure that the buildings conform to green standards. This also helps in ensuring that the Environmental Policy is enacted, enforced and reviewed using various environmental awareness programmers.



a) Observations

The botanical garden beautification with varieties of ornamental, medicinal, aromatic, horticulture, climbers and also cultivated edible organic vegetables distribute in faculty and students to encourage student and staff towards organic farming which is rich in nutrients and reduces health risk. It also encourages and avoid chemical pesticides and their hazardous effect on living organism.

Various manmade activities have wide range of impacts on the surrounding ecosphere, both negative as well as positive. Over the years, Loknete Vyankatrao Hiray Arts, science and Commerce College, Panchavati, Nashik has undertaken various activities like plantation and beautification of campus through various drives. The campus has good plantations and landscaping. It's a positive step to reduce its environmental impact. This section provides a detailed list of plant species observed within the campus.

The campus attempts to maintain eco-friendly atmosphere on the campus; the number and variety of plant species helps to maintain eco-friendly ambience. Further, to create eco-friendly awareness among the student's college arranges special programmers through which the students get clear idea and importance of trees in life. There are approximately 615 tree habit species, 25 shrub habit species have been observed. Highly medicinal plantlets cultivated in Botanical garden. Plant irrigated through drip irrigation. Campus is located in the vicinity of approximately 75 types species and 25 medicinal plant species. Total 615 trees, 11 species of green vegetable plants are observed in the campus. Tree plantation programs are being organized during the month of July and August at college campus and surrounding villages through NSS and F.Y.S.Y & T.Y B.Sc botany students. This program helps in encouraging eco-friendly environment which provides pure oxygen within the institute and awareness among villagers. The plantation program includes plantation of various type of indigenous species of medicinal as well as wild plant species. Under the biodiversity and ecological survey, pond is well maintained as an ecosystem in the premises. Rain water harvesting practices is well maintained in the campus.

7.

Botanical Garden Beautification and Tree plantation



Tree Plantation: Hon. Samajshree Prashantdada Hiray Secretary MGV's, Dr. Apporva Hiray ex MLC, Maharashtra State, India, Dr. V. S. More Joint Secretary MGV's, Dr. B. S. Jagdale Principal, Prof. Dr. N. B. Pawar Head PG department of Botany and research Center and prof . Dr. S. B. Shisode



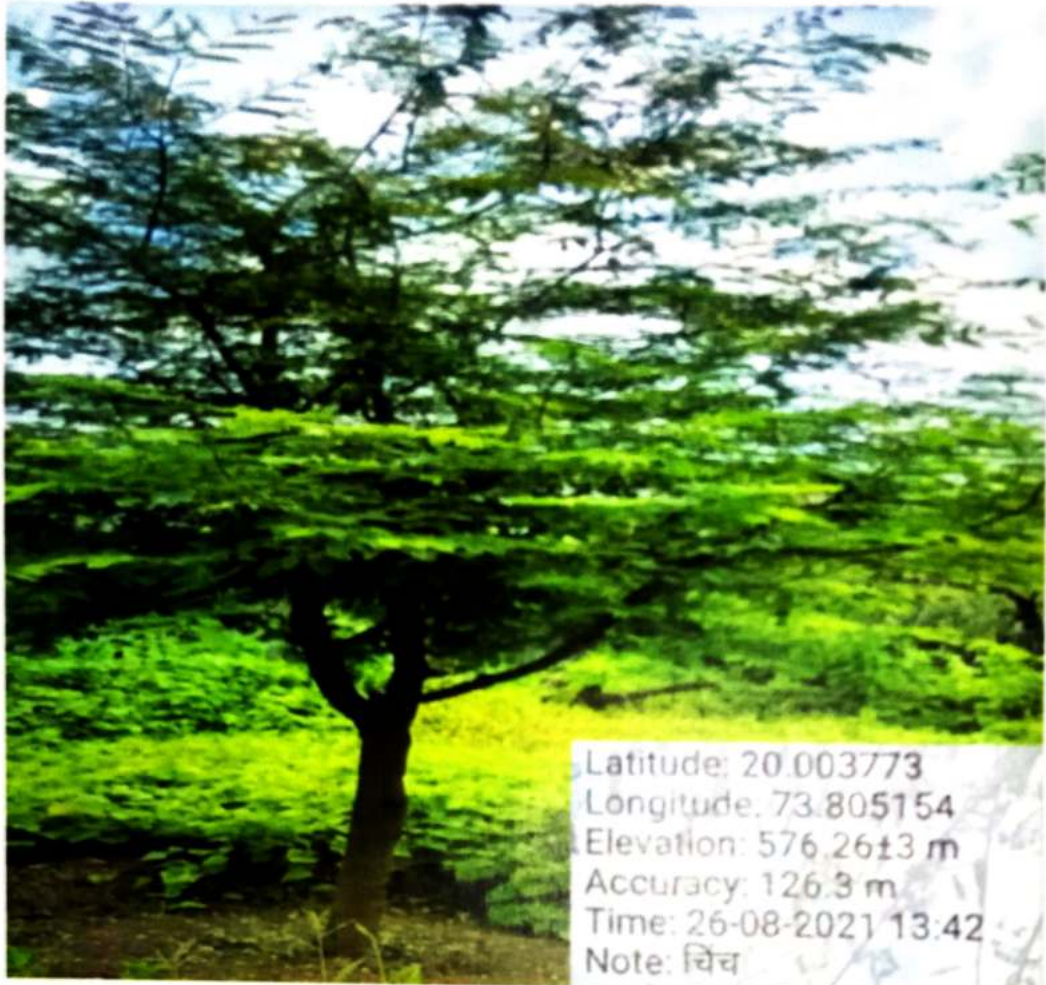
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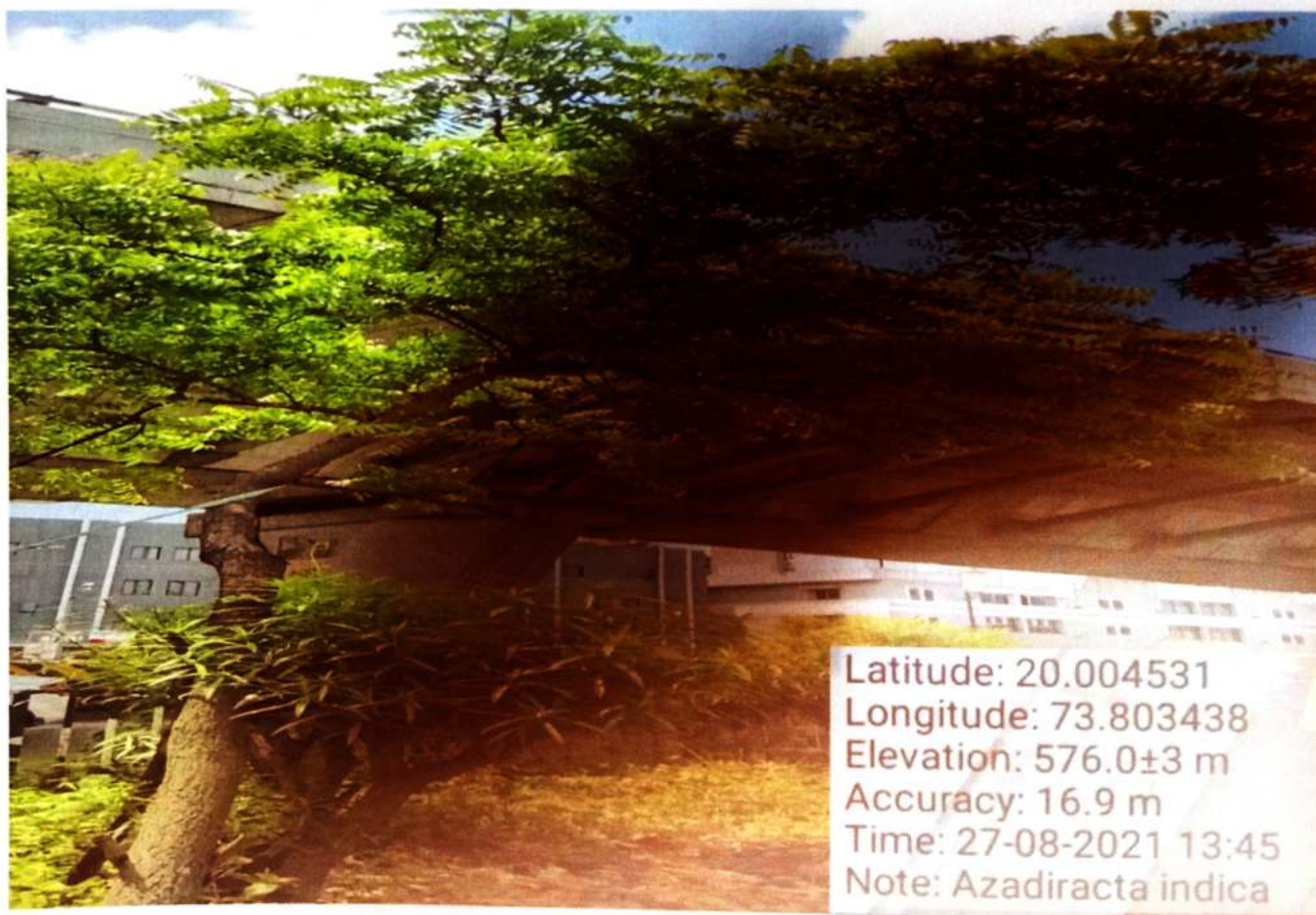
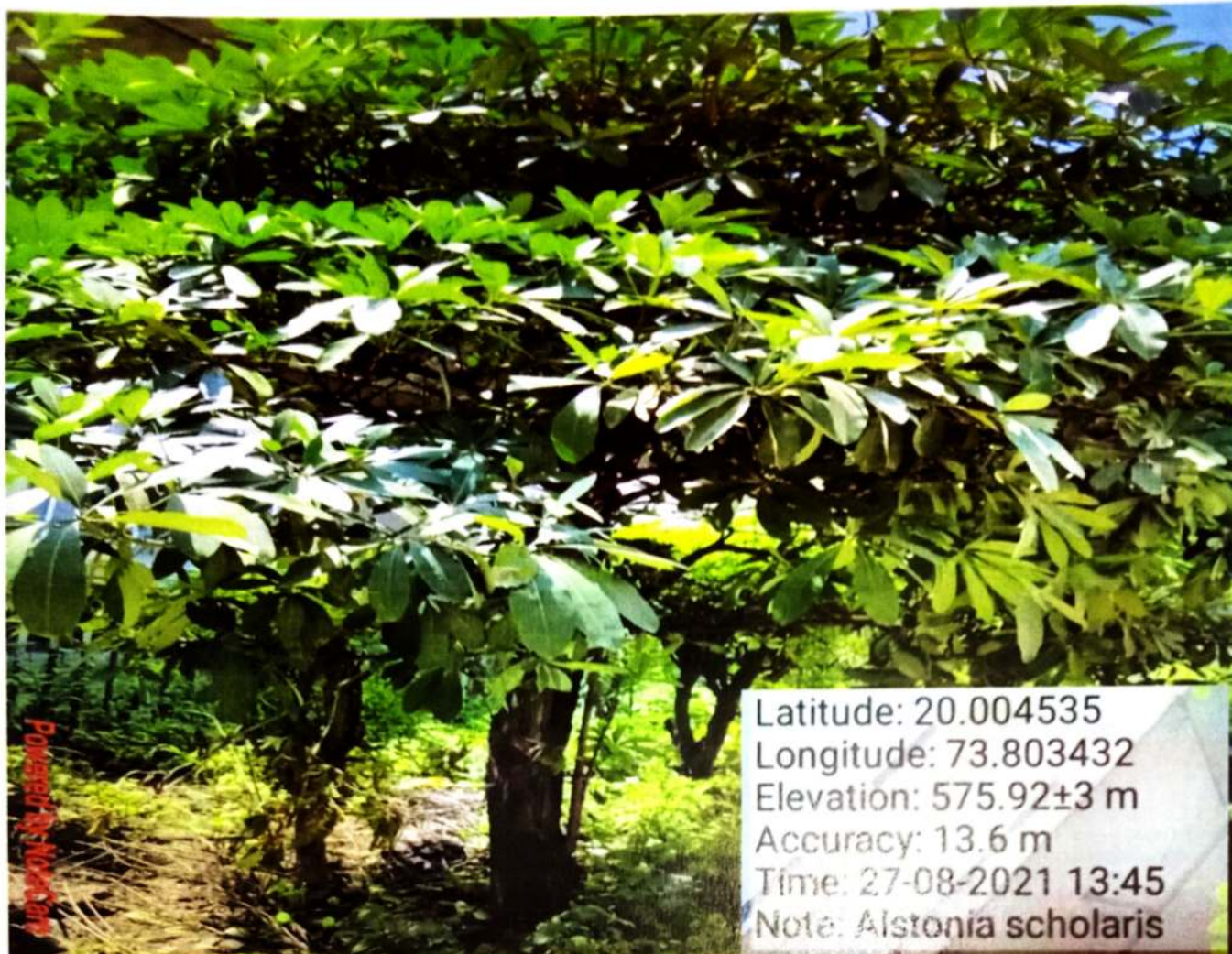




Latitude: 20.003773
Longitude: 73.805154
Elevation: 576.26±3 m
Accuracy: 126.3 m
Time: 26-08-2021 13:42
Note: चिच



Latitude: 20.003709
Longitude: 73.805281
Elevation: 576.46±3 m
Accuracy: 15.1 m
Time: 26-08-2021 13:40
Note: bakana





Latitude : 20.006453543901443°
Longitude : 73.80404194816947°
Altitude : 509.0 meters
Date : 07/03/2021 10:04 am
Note : Cassia fistulosa



Latitude : 20.006305938586593°
Longitude : 73.80398939363658°
Altitude : 510.0 meters
Date : 07/03/2021 10:02 am
Note : Cassia fistulosa

List of plants in the college campus

SR. NO.	NAME OF THE PLANTS	NO. OF EACH SPECIES
1.	<i>Achyranthes aspera</i>	10
2.	<i>Aerva lanata</i>	8
3.	<i>Allamanda cathartica</i>	5
4.	<i>Aloevera</i>	1
5.	<i>Alpinia langal</i>	1
6.	<i>Andrographis paniculata</i>	4
7.	<i>Anthurium andraeanum</i>	8
8.	<i>Apama siliquosa</i>	1
9.	<i>Aralium</i>	3
10.	<i>Ardisia littoralis</i>	1
11.	<i>Aristolochia indica</i>	1
12.	<i>Asclepias curassavica</i>	3
13.	<i>Asparagus racemosus</i>	1
14.	<i>Azadirachta indica</i>	1
15.	<i>Begonia rex</i>	2
16.	<i>Biophytum sensitivum</i>	4
17.	<i>Blepharis boerhaaviaefolia</i>	3
18.	<i>Boerhaavia diffusa</i>	2
19.	<i>Bougainvillea spectabilis</i>	4
20.	<i>Brunfelsia americana</i>	1
21.	<i>Caesalpinia sappan</i>	1
22.	<i>Calanthe veratifolia</i>	2
23.	<i>Calliandra marginata</i>	1
24.	<i>Callistemon lanceolatus</i>	1
25.	<i>Calotropis gigantea</i>	1
26.	<i>Cananga odorata</i>	1
27.	<i>Cardiospermum halicacabum</i>	1
28.	<i>Catharanthus rosea</i>	4
29.	<i>Centella asiatica</i>	5
30.	<i>Chlorophytum sensitivum</i>	2
31.	<i>Cissus quadrangularis</i>	1
32.	<i>Clematis paniculata</i>	1
33.	<i>Clitoria ternatea</i>	2
34.	<i>Codiaeum variegatum</i>	12
35.	<i>Coffea travancorensis</i>	1
36.	<i>Coleus vetiveroides</i>	1

37.	<i>Convolvulus</i>	2
38.	<i>Cordia</i>	1
39.	<i>Cosmospinnata</i>	3
40.	<i>Costuspictus</i>	2
41.	<i>Cuphaeaminiata</i>	3
42.	<i>Cyathula prostrate</i>	2
43.	<i>Cymbopogoncitrates</i>	1
44.	<i>Daturastramonium</i>	1
45.	<i>Dendrobiumjasminoides</i>	1
46.	<i>Desmodiumgangeticum</i>	2
47.	<i>Dorsteniaindica</i>	3
48.	<i>Dracaenaterminalis</i>	4
49.	<i>Dracaenaterniflora</i>	2
50.	<i>Durantaplumerii</i>	1
51.	<i>Durantarepens</i>	1
52.	<i>Ehretia</i>	1
53.	<i>Elephantopusscaber</i>	1
54.	<i>Epiphyllum</i>	
55.	<i>Eupatoriumayapana</i>	1
56.	<i>Euphorbiahirta</i>	4
57.	<i>Evodearoxburghiana</i>	1
58.	<i>Excoecariabicolor</i>	1
59.	<i>Ficussp.</i>	4
60.	<i>Gomphrenaglobosa</i>	3
61.	<i>Hameliapatens</i>	1
62.	<i>Hedychiumcoronarium</i>	1
63.	<i>Heliotropiumindicum</i>	1
64.	<i>Heliotropiumscabrum</i>	1
65.	<i>Hemidesmusindicus</i>	1
66.	<i>Hemigraphiscolorata</i>	1
67.	<i>Hibiscusrosa-sinensis</i>	2
68.	<i>Holarrhenaantidysentrica</i>	1
69.	<i>Ilysanthesserrata</i>	9
70.	<i>Impatiensbalsamina</i>	4
71.	<i>Isotomalongiflora</i>	2
72.	<i>Ixoracoccinea</i>	2
73.	<i>Jacobina</i>	1
74.	<i>Jatrophaacurcas</i>	1
75.	<i>Jatrophaadagrica</i>	1
76.	<i>Jatropha pandurifolia</i>	1

77.	<i>Justicia heddomei</i>	3
78.	<i>Kaempferia galanga</i>	1
79.	<i>Knoxia mollis</i>	4
80.	<i>Lantana camara</i>	2
81.	<i>Loranthus longiflorus</i>	2
82.	<i>Mangifera indica</i>	2
83.	<i>Maranta bicolor</i>	1
84.	<i>Melastoma malabathricum</i>	1
85.	<i>Mentha piperita</i>	2
86.	<i>Micrococca mercurialis</i>	2
87.	<i>Mimosa pudica</i>	5
88.	<i>Mirabilis jalapa</i>	2
89.	<i>Murraya exotica</i>	1
90.	<i>Nicotiana glauca</i>	1
91.	<i>Nymphaea stellata</i>	5
92.	<i>Ocimum basilicum</i>	2
93.	<i>Ocimum sanctum</i>	1
94.	<i>Ophiorhiza hirta</i>	1
95.	<i>Oxalis corniculata</i>	3
96.	<i>Pentas lanceolata</i>	2
97.	<i>Petreola volubilis</i>	1
98.	<i>Phyllanthus urinaria</i>	10
99.	<i>Pimenta officinalis</i>	1
100.	<i>Piper longum</i>	1
101.	<i>Pistia stratiotes</i>	2
102.	<i>Plumbago indica</i>	1
103.	<i>Polylathia pendula</i>	1
104.	<i>Polygonum chinensis</i>	1
105.	<i>Rauwolfia canescens</i>	1
106.	<i>Rawolfia serpentina</i>	1
107.	<i>Rosa indica</i>	2
108.	<i>Ruellia macrantha</i>	2
109.	<i>Ruellia pauciflora</i>	1
110.	<i>Sansevieria roxburghiana</i>	1
111.	<i>Saraca asoka</i>	1
112.	<i>Scaveola</i>	1
113.	<i>Scoparia dulcis</i>	4
114.	<i>Strobilanthes heyneanus</i>	1
115.	<i>Thalium cuneifolium</i>	1
116.	<i>Torenia asiatica</i>	2

117.	<i>Tradescantiabicolor</i>	10
118.	<i>Triphasiatrifoliata</i>	1
119.	<i>Vetiveriazizanioides</i>	1
120.	<i>Vitexnegundo</i>	1
	GYMNOSPERMS	
121.	<i>Cycassp.</i>	3
122.	<i>Podocarpussp.</i>	5
123.	<i>Zamiasp.</i>	1
	PTERIDOPHYTES	
124.	<i>Adiantum</i>	1
125.	<i>Azolla</i>	1 potfull
126.	<i>Equisetum</i>	1 potfull
127.	<i>Lygodium</i>	2
128.	<i>Marsilea</i>	1 potfull
129.	<i>Ophioglossum</i>	5
130.	<i>Salvinia</i>	Numerous
131.	<i>Selaginella</i>	Numerous
132.	<i>Angiopteris</i>	1

Environmental Awareness Course (EVS): This is compulsory course introduced by SP Pune University, Pune for second year students for all faculty. Under this course student learn to be environmental friendly. They are made aware of

- 1) Renewable and Non-renewable energy sources
- 2) Energy conservation.
- 3) E-waste management.

Air Monitoring: Air quality in the academic institute is very important for health of the students, faculty and staff of the institute. The air pollution sources in the college campus are wind storm, pollen grains, natural dust, vehicular emissions, generators, fires and laboratory fumes etc.



Noise Environment:

The noise levels measurements were carried out using Noise level meter. The noise level survey was carried out at seven locations, at outside as well inside the study area. The Noise levels monitored in the college campus as well as inside the classroom and found the noise level within the permissible limit.

Sr.No	Location	Minimum Reading In dB	Maximum Reading In dB	Limits
1.	Near Main Gate	28.6	28.7	75
2.	Near Back Gate	28.2	28.6	75
3.	Inside Class room	28.1	28.3	75
4.	Outside Classroom	27.1	27.4	75
5.	Inside Library	28.1	27.5	75
6.	Inside Chemistry lab	28.2	28.2	75
7.	Inside Physics lab	27.0	27.1	75

Ventilation Study:

Ventilation study was carried out using Anemometer at four different classrooms and the result was satisfactory.

Sr.No	Location	Reading In m/s	Limits
1.	Inside Class room	0.8	>0.5
2.	Inside Library	1.1	>0.5
3.	Inside Chemistry lab	0.7	>0.5
4.	Inside Physics lab	0.8	>0.5

Illumination Study:

The Illumination measurements were carried out using Lux meter at five locations inside the study area and light intensity found adequate in monitored area.

Sr.No	Location	Reading In Lux	Limits
1.	Inside Class room	200	>100
2.	Inside Library	255	>100
3.	Inside Chemistry lab	192	>100
4.	Inside Physics lab	195	>100

b) Recommendations

- Periodically review the list of trees planted in the garden. Give scientific names to the trees.
- Promote environmental awareness as a part of course work in various curricular areas, independent research projects and community service.
- Create awareness of environmental sustainability and take actions to ensure environmental sustainability.
- The Environmental Committee must organize more programs of sustainable environment policy

for staff and students.

- To promote student and society towards organic farming through NSS camp and relative program
- Established plantlets nursery for conservation and cultivation of endangered, rare highly medicinal and Threaten species.
- Cultivate microorganism plants like pteridophytes having high nutritional and yield values and create awareness.
- Increase recycling education on campus.

1. Conclusions.

Green Audit is the most efficient way to identify the strength and weakness of environmental sustainable practices and to find a way to solve problem. The institution has undergraduate as well as post graduate program, there is significant environmental awareness both by faculties and students and initiatives taken by them are substantial. The installation of solar panels, paperless work system, rain harvesting, cultivation of medicinal, organic vegetables, useful slogan, composting, vermicomposting, planted different Tree, shrub, herb habit species, safely reuse of e-waste, neutral chemical waste, organic slurry, land escaping for soil erosion and besides, environmental awareness course initiated by the administration shows how the campus is going to be a green. Few recommendations are added to curb the menace of waste management using ecofriendly and scientific techniques. As part of green audit of campus, we carried out the environmental monitoring of campus where includes Illumination, Noise level, Ventilation and Indoor Air quality of the class room. It was observed that Illumination and Ventilation is adequate considering natural light an derive locality present. Noise level in the campus is well within the limit Canteen water was also analyzed and found to be potable.

Efforts for Carbon Neutrality

College is having its own vehicles and regular maintenance has been carried out for these vehicles which are support to low down the Carbon Neutrality.

- Institute has separate parking zone for vehicles.
- Dead leaves of tree are decomposed and used as organic fertilizer.
- Green Treasure Day and Pollution Free Day were initiated in 2015-16 to spread awareness about Green India.
- Planting a variety of trees has contributed to carbon neutrality on the campus.
- This may lead to the prosperous future in context of Green Campus and thus sustainable environment and community development.

Carbon Footprint

- Petrol used by two wheelers/day 40 L (1 L for 40x1=40 km) Petrol/diesel
- used by four wheelers 18 L (2 L for 20x2=40km)
- For persons travelling by common transportation 40 L (3 Lx 850 persons) Diesel used
college bus/day 5L (1L for 7x3=21 km)
- Total fossil fuel use is 103 L / day

Use of Burning of fuels is the main source and cause of CO₂ release to the atmosphere. Carbon dioxide release for the faculty and staff to reach the college is high. It is contributing to the global warming and increasing the pace of climate change. The cost of using the cars is very high and therefore discourages stakeholders from using them. suggestion to reduce the use of fuel : Establish a system of car pooling among the staff to reduce the number of four wheelers coming to the college. Encourage students and staff to use cycles. Establish a more efficient cooking system to save gas.

Discourage the students using two wheelers for their commutation.

Worthy Notes:

Participation in Institutional Social Responsibility (ISR) and Extension activities:

- Swachha Bharat Abhiyan.
- Avoid Tobacco Campaign
- Tree Plantation Programmed of Govt. of Maharashtra
- Environmental awareness programmed.
- Celebration of Ozone day, Geography day, etc. every year
- Organic Waste management through Vermicomposting and compost unit
- No vehicle day.
- Solar system.
- Land escaping.
- PC on power saving mode.
- Highlight Notice and slogan on electric and water consumption
- Rain harvesting.
- Awareness program on organic farming and hazardous effect of chemical Pesticides residues.
- Aware students to use of microorganism like Azolla plant as cattle feed having high nutritional values.
- Preparation method of organic slurry and microorganism used as organic fertilizer, pesticides, fungicides and Insecticides with zerocost.