Karmaveer



Rayat Shikshan Sanstha's

Annasaheb Awate Arts, Commerce & Hutatma Babu Genu Science College, Manchar, Tal. Ambegaon, Dist. Pune-410503.

POLICY DOCUMENT ON ENVIRONMENTAL CONSCIOUSNESS AND ENERGY USAGE

Annasaheb Awate Arts, Commerce and Hutatma Babu Genu Science College, Manchar, Pune focuses on energy usages in such manner that it reduces harmful effects on the environments. The policy applies to the whole institutions- its member's activity. Concern about environments efficiency are part of daily routing in the college. We are responsible and dedicated to the cause of resource conservation.

The Botany and Zoology department of the college in association with the NSS are dedicated to the promotion of the awareness on the protection of the environment, to minimize energy uses, increase green literacy and to take up green campus initiatives.

The important policy objectives are

- To develop awareness about environmental issues,
- To implement responsibility towards energy conservation.
- To explore alternatives to the use of natural resources.
- To focus on renewable resources of energy.
- To use LED lighting systems to reduce energy usages.
- To take additional measures to continuously improve our power consumption.
- To minimize air pollution in and around the college by using public transport or pollution free means of transport such as bicycles.
- To have pedestrian- friendly pathways.
- To develop efficient waste management system.
- To develop rain water harvesting unit.
- To harness solar energy.
- To undertake tree plantation drive in the campus and beyond the campus.
- To train our students and staff to become efficient in matters of energy usages and environmental protection.
- To create awareness in the local communities about efficient energy usages, environment protection and sustainable development.

This policy will be communicated to the students and employees via internal communication channels and will be made available to all the stakeholders on the notice board. The Environment and Energy Policy, the objectives and targets will be reviewed on a regular basis by the Principal of the college.

ANNASAHEB AWATE COLLEGE MANCHAR

Principal
Annasaheb Awate Art's Commerce, &
Hutatma Babu Genu Science College,
Manchar, Tal.Ambegaon, Dist.Pune

BIO-GEO CONSULTANCY

School, Colleges, Company Green, Carbon Credit Audit etc.
Neelkanth Society, Bombay Sappers Colony, Wadgaonsheri, Pune. 14
Email ID jyotirammore@gmail.com Mobile Number : 8983349170

Certificate Green Audit

This is certified that Rayat Shikshan Sanstha's *Annasaheb Awate College, Manchar, Tal.-Ambegaon, District- Pune, prepared by Bio-Geo Consultancy with due cooperation of the principal and staff of Annasaheb Awate College, Manchar, Tal.- Ambegaon, District- Pune, India, has conducted in August — 2022 to access the green initiative planning, efforts, activities, implemented in the college campus like plantation, Waste Management, Rain Water Harvesting, Conservation of Energy, Paperless Technology & Various Environmental Activities. This Green Audit is also aimed to access impact of green initiatives for maintenance of the campus eco-friendly.*

Place: Pune

Date:
08/08/2022

(Dr. Praveen G. Saptarshi)
More) Auditor

(Dr. Jyotiram
Coordinator

BIO-GEO CONSULTANCY

School, Colleges, Company Green, Carbon Credit Audit etc.

Neelkanth Society, Bombay Sappers Colony, Wadgaonsheri, Pune. 14Email ID jyotirammore@gmail.com Mobile Number : 8983349170

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I was actively associated with the process of collecting data and documentation of trees, bushes, grass cover and soils causing carbon sequestration. I have also conducted workshops of students and teachers on methods of quantification of biomass and Environmental Green Audit.

I wish a great future to the college and expect that the students and staff would be enthused to reduce carbon footprint by adopting methods of conservation of soil, water,plants and energy within the college campus and in society aswell.

Place: Pune

Date:
08/08/2022

(Dr. Praveen G. Saptarshi
Auditor

(Dr. Jyotiram More)
Coordinator

BIO-GEO CONSULTANCY

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Place: Pune Date:

12/08/2021

(Dr. Praveen G. Saptarshi)
Auditor

(Dr. Jyotiram More)
Coordinator

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School, Colleges, Company Green, Carbon Credit Audit etc.
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Place: Pune Date: 12/08/2021

(Dr. Praveen G. Saptarshi
Auditor

(Dr. Jyotiram More)
Coordinator

राष्ट्रीय मूल्यांकन एवं प्रत्यायन परिषद

विश्वविद्यालय अनुदान आयोग का स्वायत्त संस्थान

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

An Autonomous Institution of the University Grants Commission

Certificate of Accreditation

The Executive Committee of the
National Assessment and Accreditation Council
is pleased to declare
Rayat Shikshan Sanstha's
Annasaheb Awate Arts, Commerce and
Hutatma Babu Genu Science College, Manchar
Manchar, Tal. Ambegaon, Dist. Pune,
affiliated to Savitribai Phule Pune University, Maharashtra as
Accredited
with CGPA of 3.06 on four point scale
at A grade
valid up to December 06, 2028

Date : December 07, 2023

Director

31565

EC(SC)/176/4th Cycle/MHCOGN10825

NAAC 3rd Cycle Certificate

राष्ट्रीय मूल्यांकन एवं प्रत्यायन परिषद

विश्वविद्यालय अनुदान आयोग का स्वायत्त संस्थान

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

An Autonomous Institution of the University Grants Commission

Certificate of Accreditation

The Executive Committee of the
National Assessment and Accreditation Council
on the recommendation of the duly appointed
Peer Team is pleased to declare the
Rayat Shikshan Sanstha's
Annasaheb Awate Arts, Commerce and
Hutatma Babu Genu Science College
Manchar, Tal. Ambegaon, Dist. Pune,
affiliated to Savitribai Phule Pune University, Maharashtra as
Accredited
with CGPA of 3.09 on seven point scale
at A grade
valid up to November 26, 2022

Date : November 27, 2017

Director (Actg.)

EC(SC)/29/A&A/10.3

NAAC 2nd Cycle Certificate

राष्ट्रीय मूल्यांकन एवं प्रत्यायन परिषद

विश्वविद्यालय अनुदान आयोग का स्वायत्त संस्थान

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

An Autonomous Institution of the University Grants Commission

Certificate of Accreditation

The Executive Committee of the
National Assessment and Accreditation Council
on the recommendation of the duly appointed
Peer Team is pleased to declare the

Rayat Shikshan Sanstha's

Annasaheb Awate Arts, Commerce
& Hutatma Babu Genu Science College

Manchar, Tal. Ambegaon, Dist. Pune, affiliated to University of Pune, Maharashtra as

Accredited

with CGPA of 2.63 on four point scale

at B grade

Valid up to March 26, 2016

Date : March 27, 2011

Director

EC/55/RAR/061

NAAC 1st Cycle Certificate

राष्ट्रीय मूल्यांकन एवं प्रत्यायन परिषद्

विश्वविद्यालय अनुदान आयोग का स्वायत्त संस्थान

NATIONAL ASSESSMENT AND ACCREDITATION COUNCIL

An Autonomous Institution of the University Grants Commission

Certificate of Accreditation

The Executive Committee of the
National Assessment and Accreditation Council
on the recommendation of the duly appointed
Peer Team is pleased to declare the

Rayat Shikshan Sanstha's

Annasaheb Awate Arts, Commerce, Hutatma Babu Genu Science College

Manchar, Dist. Pune, affiliated to University of Pune, Maharashtra as

Accredited

at the B level

Date : February 16, 2004

Director

- This certification is valid for a period of *Five* years with effect from February 16, 2004
- An institutional score (%) in the range of 55-60 denotes C grade, 60-65 -C⁺grade, 65-70 - C⁺⁺grade, 70-75 - B grade, 75-80 -B⁺ grade, 80-85 - B⁺⁺ grade, 85-90 - A grade, 90-95 - A⁺ grade, 95-100 - A⁺⁺ grade (upper limits exclusive).

Academic and Administrative Audit (AAA) Certificate 2021-22

Rayat Shikshan Sanstha, Satara

Academic & Administrative Audit (AAA) : 2021-22

Certificate

This is to certify that the Committee of the Sanstha visited

Rayat Shikshan Sanstha's

Annasaheb Awate Arts, Commerce, Hutatma Babu Genu Science College, Manchar. Tal Ambegaon, Dist. Pune

(affiliated to Savitribai Phule Pune University, Pune , Maharashtra)

for 'AAA' on 12/8/2022

and secured **1202** marks out of **1500**

Prin.Dr.V.S.Shivankar
Secretary
Rayat shikshan Sanstha, Satara

Dr.Anil Patil
Chairman
Rayat shikshan Sanstha, Satara

Date : 28/11/2022

Scanned with OKEN Scanner

Rayat Shikshan Sanstha, Satara

Academic & Administrative Audit (AAA) : 2021-22

(for Affiliated College)

Name of the Institution : Rayat Shikshan Sanstha's Annasaheb Awate Arts, Commerce, Hutatma Babu Genu Science College, Manchar. Tal Ambegaon, Dist. Pune

Criteria	Marks Assigned	Assessment by AAA Committee
Part I : NAAC		
1. Curricular Aspects	100	75
2. Teaching-Learning and Evaluation	350	277
3. Research, Innovation and Extension	110	93
4. Infrastructure and Learning Resources	100	93
5. Student support and Progression	140	110
6. Governance, Leadership and Management	100	94
7. Institutional Values and Best Practices	100	100
Total I	**1000**	**842**
Part II : OAFA		
Office Administration and Financial Audit	200	190
Part III : NIRF		
National Institutional and Ranking Framework	100	47
Part IV : Departmental Profile		
Departmental Profile (Average of All Departments)	150	85
Part V : Faculty Profile		
Faculty Profile	50	38
Grand Total	**1500**	**1202**

Date : 28/11/2022

Prin.Dr.V.S.Shivankar
Secretary
Rayat shikshan Sanstha, Satara

Scanned with OKEN Scanner

Academic and Administrative Audit (AAA) Certificate 2020-21

Rayat Shikshan Sanstha, Satara

Academic & Administrative Audit (AAA) : 2020-21

Certificate

This is to certify that the Committee of the Sanstha visited

Rayat Shikshan Sanstha's

Annasaheb Awate Arts, Commerce, Hutatma Babu Genu Science College, Manchar. Tal. Ambegaon, Dist. Pune

(affiliated to Savitribai Phule Pune University, Pune , Maharashtra)

for 'AAA' on 17/8/2022

and secured **1067** marks out of **1500**

Prin.Dr.V.S.Shivankar
Secretary
Rayat shikshan Sanstha, Satara

Dr.Anil Patil
Chairman
Rayat shikshan Sanstha, Satara

Date : 28/11/2022

Scanned with OKEN Scanner

Rayat Shikshan Sanstha, Satara

Academic & Administrative Audit (AAA) : 2020-21

(for Affiliated College)

Name of the Institution : Rayat Shikshan Sanstha's Annasaheb Awate Arts, Commerce, Hutatma Babu Genu Science College, Manchar. Tal. Ambegaon, Dist. Pune

Criteria	Marks Assigned	Assessment by AAA Committee
Part I : NAAC		
1. Curricular Aspects	100	80
2. Teaching-Learning and Evaluation	350	255
3. Research, Innovation and Extension	110	44
4. Infrastructure and Learning Resources	100	70
5. Student support and Progression	140	93
6. Governance, Leadership and Management	100	78
7. Institutional Values and Best Practices	100	88
Total I	**1000**	**708**
Part II : OAFA		
Office Administration and Financial Audit	200	190
Part III : NIRF		
National Institutional and Ranking Framework	100	52
Part IV : Departmental Profile		
Departmental Profile (Average of All Departments)	150	67
Part V : Faculty Profile		
Faculty Profile	50	50
Grand Total	**1500**	**1067**

Date : 28/11/2022

Prin.Dr.V.S.Shivankar
Secretary
Rayat shikshan Sanstha, Satara

Scanned with OKEN Scanner

Academic and Administrative Audit (AAA) Certificate 2017-18



"Education through Self-help is our Motto"- KARMAVEER

RAYAT SHIKSHAN SANSTHA, SATARA

Maharashtra State (INDIA)

Founder : Padmabhushan Dr. Karmaveer Bhaurao Patil, D.Litt

Website : www.rayatshikshan.edu E-mail : secretary@rayatshikshan.edu

|| ACADEMIC AND ADMINISTRATIVE AUDIT (AAA) CERTIFICATE ||

(2017-18)

Annasaheb Awate Arts, Commerce, Hutatma Babu Genu Science College, Manchar, Dist. Pune

We have Audited this Institution for AAA and it's Score is 773 out of 1500.

Prin.Dr.Bhausaheb Kisan Karale
Secretary

Dr. Anil Appasaheb Patil
Chairman

Place : Satara
Date : 30/04/2018



Rayat Shikshan Sanstha's

Annasaheb Awate Arts, Commerce, Hutatma Babu Genu Science College, Manchar, Tal-Ambegaon, Dist-Pune (M.S)

GREEN AUDIT REPORT

&

ENERGY AUDIT REPORT

2021-22

Rayat Shikshan Sanstha's

Annasaheb Awate Arts, Commerce, Hutatma Babu Genu Science College, Manchar, Tal- Ambegaon, Dist- Pune (M.S)

Affiliated to Savitribai Phule Pune University, Pune.

[PU/PN/ASC/017/1966]

Our Vision

Education for masses is principal instrument and the tool for eradication of all pervasive social evils and desirable effective social change. Education through self-help is a significant and chief drive of social change to achieve different tasks of nation building by establishing social equality and social justice.

Our mission

In order to achieve the vision as

- **To import higher Education through the University formal courses and non-traditional self-financing and short term courses.**
- **By imparting higher education for the upliftment of the backward, the depressed, and the underprivileged and tribal communities of the region.**
- **To inculcate values and virtues among the students as mentioned the aims and the objectives of the college.**

Motto

"**Education through self-help** is our motto."

GREEN AUDIT REPORT: 2021-2022

Principal's Message



I am pleased to offer my message on the occasion of the publication of Report of „Green Audit". It is really grateful to work in Rayat Shikshan Sanstha"s Annasaheb Awate College, Manchar. It is my honor and privilege to be writing to you as your Principal. This is the place where an education movement was motivated by Late Padmabhushan Dr. Karmaveer Bhaurao Patil which sowed the seeds of education in the soil of Manchar.

Students, I am aware that only infrastructure and impressive buildings do not create a desirable education. The powerful manpower with brilliant professional skills and sound knowledge of global world makes collage perfect. Our teachers play an important role in creating ideal and unique students with scientific, democratic, spiritual and universal principles. Elevated moral values and positive sense of globalization should be of prime concern in our college. Our many students and faculty have been presenting papers in nationalized and International conferences, and many have published their effort in research journals of reputation. Our quality in academics and connected area has been acknowledged by **NAAC** committee.

Most importantly, environmental values inculcated in our students help to create environmental concern in the villages around the college. We also try to train our students to identify environmental opportunities with the activities like organic farming, fish farming, fodder development, optimal use of water for agriculture, etc.

Green Audit is useful for all of us to understand environmental resources in scientific way. The report would be useful for us for future development. Efforts made by our institutionfor the protection of environment and biodiversity conservation have been well appreciated inthe audit. It encourages us for further strengthening environment of our campus in particular and the areas around in general. I express my heartfelt thanks to expert members of team carrying outGreen Audit of our campus.

Prin. Dr. K. G. Kanade

Preface

The concept of „GREEN AUDIT-2021-22 was put forth by Hon‟ble Sharadrao Pawar, President, Rayat Shikashan Sanstha, Satara, Hon‟ble, Dr. Anil Patil, Chairman, Rayat Shikashan Sanstha, Satara and Hon‟ble Dilip Walse- Patil, Chairman of College Development Committee of Annasaheb Awate Arts, Commerce, Hutatma Babu Genu Science College, Manchar, Tal-Ambegaon, Dist- Pune (M.S)

The college is involved in tree plantation programmes for the last 50 years. Beingvisionary and committed to upliftment of weaker sections of society, college is always proactive for environmental conservation. Our college has demonstrated how eco-friendly campus can provide healthy and comfortable atmosphere for the stakeholders. It was the idea to carry out green audit for the campus of our college. We are happy to shoulder the responsibility.

Green audit of a college campus aims at understanding the present environmental status and to find out ways to internalize environmental issues which are well felt externally. It is also an attempt to develop initiative of all the stakeholders, viz. management, Principal, staff, studentsand parents to develop campus which ensures clean and green environment for learners. We also hope that such kind of exercise can develop environmental awareness among the families of students and in turn villages. With this vision in mind attempt has been made to document the green status of the campus adopting proper tools and methodology. For this, aspects like landscaping and plantation, solid waste management, recycling of waste water, conservation of energy, water conservation, rainwater harvesting and minimum usage of paper, E-Waste collection, segregation of wet and dry waste, etc. have been considered for our observations.

We are happy to note that the college exhibits almost all the aspects of “Green Campus” with participation of stakeholders in true sense of the term. It is well reflected in the activities like tree plantation with good phyto-diversity, organic farming, vermin culture, rain water harvesting, waste water management, green building, use of renewable resources etc.

Acknowlegements

We take this opportunity to express our gratitude towards the founder president of the Institute Hon"ble Sharadrao Pawar, President, Rayat Shikashan Sanstha, Satara, We also express sense of gratitude towards Hon"ble, Dr. Anil Patil, Chairman, Rayat Shikashan Sanstha, Satara and Hon"ble Dilip Walse- Patil, Chairman of College Development Committee of Annasaheb Awate Arts, Commerce, Hutatma Babu Genu Science College, Manchar, Tal- Ambegaon, Dist- Pune (M.S). We also take this opportunity to show our sense of gratitude towards College Development Committee of the college for their valuable guidance, continuous encouragement, generous gift of time with constructive criticism and suggestion during the composition of work of entire Green Audit Report-2021-2022.

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

Place: Manchar

Date: 08/08/2022

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Place: Pune

Date:
08/08/2022

(Dr. Praveen G. Saptarshi)
More) Auditor

(Dr. Jyotiram
Coordinator

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Neelkanth Society, Bombay Sappers Colony, Wadgaonsheri, Pune. 14Email ID jyotirammore@gmail.com Mobile Number : 8983349170

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I wish a great future to the college and expect that the students and staff would be enthused to reduce carbon footprint by adopting methods of conservation of soil, water,plants and energy within the college campus and in society aswell.

Place: Pune

Date:
08/08/2022

(Dr. Praveen G. Saptarshi
Auditor

(Dr. Jyotiram More)
Coordinator

1. About the College:

Annasaheb Awate Arts, Commerce and Hutatma Babu Genu Science College, Manchar, Tal- Ambegaon, Dist- Pune was established in 1966 by Rayat Shikshan Sanstha. The founder of the Sanstha, Padmabhushan Dr. Karmaveer Bhaurao Patil established the Sanstha in 1919. The institution rose up to greater heights due to the unprecedented contributions of Bhaurao Patil in the realm of education. Annasaheb Awate whose name has been given to this college was a veteran educationist and a social reformer of this region besides, the science faculty is named after Hutatma Babu Genu who breathed his last while fighting against the atrocities of the British rulers. The college was responsible for educating the first generation of the region.

The college owns 105 acres of land and 55 acres of land is used for infrastructure while remaining 50 acres is used for the social forestry. The college campus has a rich environmental and natural beautiful background therefore; the agro-based projects such as custard apple, fig, coconuts, tamarind nuts, medicinal plants, rose garden etc. are being carried on. The place is blessed by the famous religious shrine called Bhimashankar one of the well-known Jyotirlingas. The famous Astavinayak Ganesh temples Ozar and Lenyadri arealso nearby the college. The Shivneri fort, the birth place of the great Maratha King Shivaji is 25 km away from the institute. The college has earned a name and it has emerged as the principal center of education in this rural, hilly and tribal area. The college has a substantial share in the community development programme and it usually adopts tribal and interior villages as extension work. There has been a substantial growth in the research work. NSS and NCC are consistently active in various areas to help the community at large.

2. Location:

Country	India
State	Maharashtra
District	Pune
Taluka	Ambegaon
City	Manchar
Government Type	Nagar Parishad
Area[2]	8.60 km^2
Latitude	19.0^0 N
Longitude	73.93^0 E
Altitude (meters)	682
Population	18,876/- (M-9643, F-9233) (According to 2011 Census)
College Population	2150
Area Code (s)	410503
Official language	Marathi, Hindi, English.

3. Satellite Data/Climate:

Manchar has a tropical wet and dry climate with average temperatures ranging between 20 to 42 °C (68 to 108 °F). Manchar experiences three distinct seasons: Summer, Monsoon and winter. Typical summer months are from March to May, with maximum temperatures ranging from 30 to 40 °C (86 to 104 °F). The warmest months in Manchar are April and May; the city often receives locally developed heavy thundershowers in the month of May (although humidity remains high). City experiences rise in atmospheric pressure in mid-October when temperatures range from 35 to 40 °C (95 to 104 °F).

Satellite Image of Campus

- Coordinate 1: 19.0121, 73.9510
- Coordinate 2: 19.0132, 73.9512
- Coordinate 3: 19.0139, 73.9519
- Coordinate 4: 19.0142, 73.9525
- Coordinate 5: 19.0148, 73.9535
- Coordinate 6: 19.0152, 73.9540
- Coordinate 7: 19.0155, 73.9545
- Coordinate 8: 19.0165, 73.9555
- Coordinate 9: 19.0165, 73.9565
- Coordinate 10: 19.0166, 73.9570
- Coordinate 11: 19.0167, 73.9576
- Coordinate 12: 19.0170, 73.9595
- Coordinate 13: 19.0171, 73.9608
- Coordinate 14: 19.0167, 73.9614
- Coordinate 15: 19.0155, 73.9619
- Coordinate 16: 19.0152, 73.9614
- Coordinate 17: 19.0145, 73.9598
- Coordinate 18: 19.0138, 73.9595
- Coordinate 19: 19.0132, 73.9587
- Coordinate 20: 19.0125, 73.9577
- Coordinate 21: 19.0118, 73.9566
- Coordinate 22: 19.0111, 73.9556
- Coordinate 23: 19.0110, 73.9541
- Coordinate 24: 19.0111, 73.9529
- Coordinate 25: 19.0109, 73.9514

4. Meteorology:

Climate data for Manchar Town													
Month	**Jan**	**Feb**	**Mar**	**Apr**	**May**	**Jun**	**Jul**	**Aug**	**Sep**	**Oct**	**Nov**	**Dec**	**Year**
Record high °C (°F)	34	36	39	40	38	35	34	32	31	34	33	32	2021
Average high °C (°F)	31	32	38	38	35	31	29	29	29	32	31	28	2021
Daily mean °C (°F)	23	22	27	29	29	26	26	28	25	26	25	21	2021
Average low °C (°F)	16	13	17	20	23	22	22	21	21	19	18	14	2021
Record low °C (°F)	12	09	14	17	20	20	20	19	20	14	11	11	2021
Precipitation mm	1.8	00	1.5	08	28.3	112.9	265	144	131	73	36.1	5.7	Average of 47 years
Avg. precipitation days	0.1	00	0.2	0.6	1.6	7.3	15.8	12	8.1	4	1.6	0.3	Average of 47 years
% humidity	48	30	20	34	54	75	85	83	87	69	61	57	2021
Mean monthly sunshine hours	148.5	301.2	287.9	189.4	350.8	348.2	368.7	370.8	371.2	359.2	368.5	337.6	2021
Source #1: Temperature and Precipitation: IMD													
Source #2: Sun hours and Humidity: NOAA (1991–2021													

5. About Manchar Town:

Manchar is a census town in Ambegaon taluka of Pune district in the Indian state of Maharashtra. Nearby villages include Pimpalgaon and Landewadi. Manchar is located at 19.0°N 73.93°E. It has an average elevation of 682 meters (2237 feet). Manchar (Taluka–Ambegaon, Dist. Pune) is a market place on Pune -Nasik Road and Pune Bhimashankar (Near Ghodegaon) Road. Manchar railway station is a proposed railway station in Pune district in Maharashtra. The station will be built in Manchar a suburb of Pune.

Manchar Town Religion Data:

Religion	Total	Percentage	Male	Female
Hindu	15,096	79.97%	7,736	7,360
Muslim	3,150	16.69%	1,576	1,574
Christian	38	00.2%	18	20
Sikh	14	0.07%	8	6
Buddhist	169	00.9%	93	76
Jain	369	01.95%	188	181
Other Religion	1	00.01%	1	0
No Religion Specified	39	00.21%	23	16
Total	18876	100.00%	9,643	9,233

Source: Census Data 2011

6. Introduction:

Annasaheb Awate Arts, Commerce and Hutatma Babu Genu Science College, Manchar, Tal- Ambegaon, Dist- Pune was established in 1966 leads 105 acres area ofcampus, where with senior college there is administrative building, hostel, canteen, Secondary and higher secondary school, staff quarters, Ladies hostel. About 5000 population provided with facility of water, canteen, toilet, electricity.

Before establishment of this campus it was bare land, after construction of various building we develop greenery in surrounding area of the building, with keeping view to creates eco-friendly environment in this campus we are aware about sustainable use of this campus , we undertake activities like landscaping and plantation, processing and reuse of solid waste of the plant debris and canteen, recycling of the waste water, rainwater harvesting, energy conservation, e-waste management keep the environment of the campus clean and fresh enhance educational environment.

Green audit is defined as it is ultimately about corporate responsibility. It is the process of assessing the environment impact of an organization, process, project, product etc. An examination of what a company is doing to prevent its business activities from harming the environment (Macmillan).

We are making green audit of campus and facilities to keep environment of college campus eco-friendly, we conduct following activities

7. Objectives of the study:

The main objective of the green audit to promote the environment management and conservation in the college campus. The purpose of the audit is to identify, quantify, describe and priorities frame work of environment sustainability in compliance with the applicable regulations, policies and standards.

The main objectives of carrying out Green audit are.

- To introduce and aware students regarding importance of our surrounding environment and its protection.
- To secure the environment and minimize 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.
- To bring out a status report on In order to perform Green audit, the methodology environment due to the activities of the institution.
- To find the innovative ideas to minimize the future threats to the environment.

8. Methodology:

- Included different tools such as survey of campus plant, physical inspections 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;
  - Water management
  - Energy conservation
  - Waste management
  - E-waste management
  - Green area management

LANDSCAPING AND PLANTATION:

Important Aim and objective of plantation are as below

Aim:

1) To develop campus eco-friendly

2) To creates healthy environment for learning

Objectives:

1) Plants provides natural oxygen
2) Plants keeps surrounding environment clean and cool
3) Plants protect from dust which are collected on foliage
4) Trapping of dust on leaves creates dust free environment in building.
5) Increase aesthetic view of the campus
6) Plants are important it creates natural habitat for birds and animal.

9. Landscaping and Plantation:

Landscaping:

Landscape is an art to develop specific space of land into green with aesthetic view commonly called as „beautification". Earlier our college campus land was a bare land. After establishment of the Manchar College**,** in year 1966 landscaping is done, 8 acres of land has various buildings such as hostel, canteen, school, senior college, junior college toilet building, staff quarters and ladies hostel surrounding area of the building were bare land of rocks because of water scarcity it was very difficult to made campus green, it was disaster for us because without plants how this campus can breath after 16 years of efforts now our project developed as one of the Eco-friendly campus whole campus is divided for specific type of plantation now in our campus green by planting of 35 species of plants. Students of earn & learn, N.S.S., Nature Club, Department of Botany and non-teaching staff take care of the campus and keep the campus green and clean.

Plantation:

Aims and Objectives:

1) To create healthy environment
2) To develop the natural habitat in the campus
3) Increase oxygen level of the campus.
4) Keep surrounding environment cool.
5) Plants give shade.
6) Plant gives natural habitat for birds and animals including micro-organism

Plantation of plant sapling had been implemented as per location, different variety of plans are planted in various places with keeping aesthetic view and type of soil texture.

Department of Botany

Location wise Survey of College Campus plants

Table - I

Sr. No.	Location	No. of Plants
1	College Porch-1 (Inside)	613
2	College Porch-2	132
3	College front side (Including Right & Left)	261
4	Botanical Garden(Including front side)	417
5	Library surrounding	137
6	Ladies Hostel (Inside)	114
7	Ladies Hostel (Outside)	16
8	Aniket Hall Surrounding	80
9	Canteen Surrounding	349
10	Indoor hall Surrounding	77
11	Play Ground	58
12	Staff Parking	43
13	Girls Parking	17
14	Boys Parking	28
15	College main road (Right side)	117
16	Main gate right patch	143
Total No. of Plants		**2602**

Table – II: Habit Survey of Campus Plants

Sr. No.	Habit	Number
1	Trees	7287
2	Shrubs	6561
3	Herbs	4708
4	Climbers	3007
Total		**21,563**

Table – III: Number of Plants Present In Campus

Sr. No.	Botanical Name	Common Name	Family	Habit	No. of Plants
1	Acacia nilotica Linn	Babul	Mimosaceae	Tree	1007
2	Adenium obesum Roem. &Schult.	Desert rose	Apocynaceae	Shrub	06
3	Aegle marmelos (L) Curreia	Bel	Rutaceae	Tree	06
4	Ailanthus altissima Desf.	Nandurkhi	Simaroubaceae	Tree	10
5	Albizia lebbeck (L) Benth	Rain Tree	Miomsaceae	Tree	02
6	Allamanda cathartica L	Golden Trumpet	Apocynaceae	Shrub	20
7	Aloe vera (L.) Burm.f.	Korphad	Liliaceae	Herb	1003
8	Alstonia scholaris (L.) R. Br.	Satptparni	Apocynaceae	Tree	30
9	Annona reticulate L.	Raamphal	Annonaceae	Tree	05
10	Annona squamosa L.	Shitaphal	Annonaceae	Tree	3007
11	Araucaria columnaris (J.R.Forst.) Hook.	X- Mass Tree	Araucariaceae	Tree	02
12	Araucaria excels R.Br.	Quabes	Conifereae	Tree	02
13	Asparagus racemosus L.	Shatavari	Liliaceae	Climber	10
14	Azadirachata indica L	Kaduneem	Meliaceae	Tree	103
15	Bambusa bambos (L) Voss.	Bamboo	Poaceae	Tree	407
16	Bauhonia purpuria L.	Bauhonia, Apta	Fabaaceae	Tree	25
17	Bixa orellana L.	Shandri	Bixaceae	Shrub	05
18	Bombax cieba L.	Katesavar	Malvaceae	Tree	25
19	Bougainvillea spectabilis Willd.	KagdiPhul	Nyctaginaceae	Climber	51
20	Butea monosperma L.	Palas	Fabaceae	Tree	08
21	Callistemon lanceolatus R.Br.	Bottlebrush	Myrtaceae	Shrub	06
22	Canna indica L	Kardal	Cannaceae	Herb	100
23	Carica papaya L.	Papaya	Caricaceae	Herb	66
24	Caryota urens L.	Fish Tail Palm	Aracaceae	Tree	08
25	Cascabela thevetia L. (Lippold)	Bitti	Apocynaceae	Shrub	12
26	Cassia fistula Linn	Bahawa	Fabeaceae	Tree	12
27	Casurina equisetiflia L.	Sur	Casurinaceae	Tree	04
28	Ceropegia media L.	Kandilpushpa	Apocynaceae	Climber	01
29	Cesalpinia pulcherrima (L.) Sw	Shankasur	Leguminaceae	Tree	10
30	Cestrum nocturnum L	Raatrani	Solanaceae	Shrub	04
31	Calotropis gigantea (L.) Dryand	Rui	Apocynaceae	Shrub	75
32	Cocos nucifera L.	Coconut	Arecaceae	Tree	137

33	Combretum indicum (L.)	Madhumalti	Combretaceae	Climper	25
34	Cupressus sempervirens L.	Cupress	Cupressceae	Shrub	04
35	Cycas circinalis L.	Cycas	Cycadaceae	Tree	05
36	Cycas revolute Thunb.	Cycas	Cycadaceae	Tree	02
37	Cynodon barberi Rang. &Tadul.	Grass	Poaceae	Herb	Many
38	Cynodon dactylon (L.) Pers.	Durva	Poaceae	Herb	Many
39	Cynodon nlemfuensis Vanderyst.	Bermuda grass	Poaceae	Herb	Many
40	Cynodon plectostachyus (K. Schum) Pilg.	Giant Star grass	Poaceae	Herb	Many
41	Cyperus rotundus L.	Nut grass	Cyperaceae	Herb	Many
42	Cyperus alterniflolius Rottb.	Umbrella palm	Cyperaceae	Herb	Many
43	Dalbergia sisoo Roxb.	Shisham	Fabaceae	Tree	45
44	Datura metel L.	Dhotra	Solanaceae	Shrub	07
45	Delonix regia Rafin	Gulmohor	Caesalpiniaceae	Tree	10
46	Dracaena braunii Engl.	Lucky Bamboo	Asparagaceae	Shrub	40
47	Dracaena marginata Lam.	Dracaena	Asparagaceae	Tree	05
48	Duranta erecta L.	Golden duranta	Verbenaceae	Shrub	1321
49	Dypsis lutescens (H. Wendl.) Beentie & J.Dransf	Areca Palm	Arecaceae	Tree	06
50	Epipremnum aureum (Linden & André) G.S. Bunting	Money Plant	Araceae	Climber	25
51	Eucalyptus globulus Labill.	Neelgiri	Myrtaceae	Tree	25
52	Euphorbia bulbispina Rauh & Razaf.	Succulent plant	Euphorbiaceae	Shrub	01
53	Euphorbia canariensis L.	Succulent plant	Euphorbiaceae	Shrub	10
54	Euphorbia lacteal Hawk.	Cactus	Euphorbiaceae	Shrub	02
55	Euphorbia tithymaloides L.	Red bird cactus	Euphorbiaceae	Shrub	50
56	Ficus bengalensis L.	Banyan Tree	Moraceae	Tree	25
57	Ficus benjamina L.	Ficus tree	Moraceae	Tree	50
58	Ficus elastic Roxb.exHornem.	Rubber Tree	Moraceae	Tree	01
59	Ficus racemose Roxb.	Umber	Moraceae	Tree	15
60	Gliricidia sepium Kunth	Giripushpa	Fabaceae	Tree	387
61	Hamelia patens Jacq.	Hamelia	Rubiaceae	Shrub	20
62	Hibiscus rosa-sinensus L.	Jaswand	Malvaceae	Shrub	30
63	Hyophorbe lagenicaulis (L.H.Bailey) H.E.Moore	Bottle palm	Arecaceae	Tree	12
64	Ipomoea purpurea (L.) Roth	Morning glory	Convolvulaceae	Climber	2751
65	Ixora coccinea L.	Jungle flame	Rubiaceae	Shrub	15
66	Jacaranda mimosifolia D. Don	Neelgulmohar	Bignonaceae	Tree	06
67	Jasminum sambac (L.) Aiton	Mogra	Oleaceae	Shrub	10
68	Jatropha curcas L	Moglierand	Euphorbiaceae	Shrub	107
69	Justicia adhatoda L.	Adusa	Acanthaceae	Shrub	08
70	Kalanchoe pinnata (Lam.) Pers	Panphuti	Crassulaceae	Herb	97

71	Lantana camara L.	Tantani/ HaladiKunku	Verbenaceae	Shrub	2709
72	Leucaena leucocephala (Lam.) de Wit	Subabul	Mimosaceae	Tree	5011
73	Livistona rotundifloia (Lam)	Table-Palm	Aracaceae	Tree	02
74	Mangifera indica L.	Mango	Anacardiaceae	Tree	71
75	Michelia champaca (L.) Baill. ex Pierre.	Champa	Magnoliaceae	Tree	02
76	Millingtonia hortensis L. f.	Buch	Bignoniaceae	Tree	25
77	Mimosa pudica L.	Touch Me Not/ Lajalu	Mimosaceae	Herb	109
78	Monoon longifolium Sonn. B.Xue & R.M.K.Saunders	FasleAshoka/ Buddha Tree	Annonaceae	Tree	50
79	Moringa oleifera Lam.	Shevga	Moringaceae	Tree	25
80	Murraya koenigii (L.) Spreng	Curry Leaf	Rutaceae	Tree	10
81	Nerium indicum MILL.	Kanher	Apocynaceae	Shrub	25
82	Nyctanthes arbor-tristis L.	Parijat	Oleaceae	Shrub	02
83	Ocimum tenuiflorum L	Ram Tulsi	Lamiaceae	Herb	30
84	Ocimum sanctum L	Tulsi	Lamiaceae	Herb	100
85	Oroxylum indicum (L.) Benth. ex Kurz	Tetu	Bignoniaceae	Tree	02
86	Passiflora endulis Sims	Krushnakamal	Passifloraceae	Climber	04
87	Phyllanthus emblica L.	Avala	Phyllanthaceae	Tree	45
88	Pithecellobium dulce (Roxb.) Benth	Vilayti Chinch	Fabaceae	Tree	10
89	Plumeria rubra L.	Red Chaffa	Apocyanaceae	Tree	02
90	Plumeria obtuse L.	White Chaffa	Apocyanaceae	Tree	03
91	Pongamia pinnata (L.) Pierre	Karanj	Fabeaceae	Tree	10
92	Portulaca oleracea L.	Perslane	Portulacaceae	Herb	2967
93	Prosopis juliflora (Sw.) DC.	VadiBakul	Fabaceae	Tree	71
94	Psidium guajava L.	Peru	Mrytaceae	Tree	79
95	Pyrostegia venusta (Ker Gawl.) Miers	Flame vine	Bignoniaceae	Climber	02
96	Ricinus communis L.	Erand	Euphorbiaceae	Shrub	97
97	Rosa indica L.	Rose/ Gulab	Rosaceae	Shrub	07
98	Saraca ashoka L	Sitecha Ashoka	Fabaceae	Tree	01
99	Santalum album L.	Chandan	Santalaceae	Tree	25
100	Senna siamea (Lam.) Irwin et Barneby	Kashid	Caesalpinaceae	Tree	05
101	Spathodea campanulata P.	Fountain tree	Bignoniaceae	Tree	08

	Beauv.				
102	Stereospermum chelonoides DC.	Padal	Bignoniaceae	Tree	01
103	Syzygium cumini (L.)	Jamun	Euphorbiaceae	Tree	103
104	Tabernaemontana divaricata (L.) R.Br. ex Roem. &Schult.	Tagar	Apocynaceae	Shrub	08
105	Tamarindus indica L.	Chinch	Fabaceae	Tree	850
106	Tectona grandis Linn..	Saag	Lamiaceae	Tree	30
107	Terminalia catappa L.	Indian Badam	Combretaceae	Tree	10
108	Thespesia populnea L.) Sol. ex Corrêa	Ran bhendi	Malvaceae	Tree	10
109	Thevetia neriifolia Juss.ex A.DC.	Bitti	Apocyanaceae	Shrub	20
110	Thuja occidentalis L.	Morpankhi	Cupressaceae	Tree	60
111	Tinospora cordifolia (Thunb.) Miers	Gulvel	Menispermaceae	Climber	571
112	Tradescantia spathacea Sw.	Oyster Plant	Commenlinaceae	Herb	07
113	Vinca roseus (L.) G. Don.	Sadphuli	Apocynaceae	Herb	319
114	Vitex negundo L.	Nirgudi	Lamiaceae	Tree	04
115	Withania somnifera (L) Dunal	Ashwagandha	Solanaceae	Shrub	1931
116	Ziziphus jujube Mill	Ber / Bor	Rhamnaceae	Tree	27
117	Annona muricata L.	Laxumanphal	Annonaceae	Shrub	02
	Total				**21563**

Table - IV: List of Some Medicinal Plants in the College campus

Sr. No	Botanical name	Local name	Part used	Uses
1	Aegle marmelos (L) Curreia	Bel	Leaves, Fruits	Fever, Eye diseases, Diarrhea, skin diseases, cough.
2	Aloe vera (L.) Burm.f.	Korphad	Leaves	Digestive system disorders, skin care, Inflammation
3	*Azadirachata indica* L.	Kadu-Neem	Leaves , seeds	Expectorant cure digestive germs & worms
4	Bixa orellana L.	Shandri	Seeds, Leaves	Laxative, cardiotonic, hypotensive, expectorant, and antibiotic. Used in pharmaceutical, cosmetic, textile, and especially food industries
5	Butea monosperma	Palas	Leaves, Flowers	leprosy, strangury, gout, skin diseases, thirst sensation; flower juice is used to treat eye diseases

6	*Cassia fistula* Linn.	Bahava/ Amaltash	Whole Plant	Leaves used for erysipelas, malaria, rheumatism, and ulcers, buds used for biliousness, constipation, fever, leprosy, and skin disease and fruit for abdominal pain, constipation, fever, heart disease, and leprosy.
7	Cynodon dactylon (L.) Pers.	Durva	Whole Plant	Anasarca, cancer, convulsions, cough, cramps, diarrhea, dropsy, dysentery, epilepsy, headache, hemorrhage, hypertension, hysteria, measles, rubella, snakebite, sores, stones, tumors, urogenital disorders, warts and wounds.
8	Dalbergia sisoo Roxb.	Shisham	Leaves, Stem, Seeds, bark.	Obesity, vitiligo, fever, non healing wounds, ulcers, intestinal parasites & timber, fuelwood
9	Eucalyptus globulus Labill.	Neelgiri	Leaves, Stem	Arthritis and skin ulcers. Eucalyptus oil is also used to ease cold symptoms and provide respiratory health benefits. mouthwashes and cold remedies
10	Hibiscus rosa-sinensus L.	Jaswand	Fruits, Leaves, Bark	Treating wounds, inflamation, fever and coughs, diabetes, infections caused by bacteria and fungi, hair loss, and gastric ulcers
11	Jatropha curcas L	Moglierand	Seeds, Leaves	Biodiesel production and skin care, cancer, digestive, respiratory and infectious diseases.
12	Justicia adhatoda L.	Adusa	Leaves, roots, flowers, and bark	Cough, colds, asthma, to liquefy sputum, as a bronchodilator, bronchial catarrh, bronchitis, and tuberculosis.
13	Kalanchoe pinnata (Lam.) Pers	Panphuti	Leaves	Headache, to cure cuts and wounds, eye diseases. skin's tone and elasticity, helping to smooth wrinkles and fine lines.
14	Lantana camara L.	Tantani/ Haladi Kunku	Leaves, Stem & Roots	Cancers, chicken pox, measles, asthma, ulcers, swellings, eczema, tumors, high blood pressure, bilious fevers, catarrhal infections, tetanus, rheumatism, malaria, antiseptic, antispasmodic.
15	*Ocimum sanctum* L.	Ram tulsi	Whole plant	Bronchitis, bronchial asthma, malaria, diarrhea, dysentery, skin diseases,
16	Oroxylum indicum (L.) Benth. ex Kurz	Tetu	Leaves, Stem Roots,	Treatment of jaundice, arthritic and rheumatic problems, gastric ulcers, tumors, respiratory diseases, diabetes, and

			Seeds, Pods.	diarrhea and dysentery
17	Phyllanthus emblica L.	Avala	Fruit, Leaves	Diarrhea, jaundice, inflammation, hair care, reduces stress.
18	Saraca ashoka L	Ashoka	Branch of plant	Use in milk secretion in mother
19	Santalum album L.	Chandan	Bark, stem	Use in food and cosmetics.
20	Tinospora cordifloia (Thunb) Miers	Gulvel	Stem, Leaves	an anti-inflammatory, anti-diabetic, and even as an anti-cancer agent.
21	*Vitex negundo* L.	Nirgudi	Leaves, Seeds, Roots.	Relieves muscle aches and joint pains, to treat excessive vaginal discharge, edema, skin diseases, pruritus, helminthiasis, rheumatism and puerperal fever.

Table - V: Theme Localities

Sr. No.	Theme	Location	Plants
1	Oxygen rich	Botanical garden, Main road, Ladies hostel campus	Tulsi, Pimpal, Neem,
2	Beauty	Botanical Garden, Front of college	Ficus, Croton, Cynadon, Palm,Cycas.
3	Medicinal Plants	Botanical garden	Bahava, Adulsa,Tulsi, Palas, Tetu, Korpad,
4	Shade	Botanical garden, college road, Ladies Hostel, Girls Parking, Canteen front side.	Chinch, Avala, Ficus, Sena,, Bitti, Gulmohar
5	Avenue	College road and way to botanical garden, Hostel	Bitti, Gulmohar, Nilgiri, False Ashok, Neem,
6	Palms	College front, Indoor Stadium front side.	Areca palm, fish-tail palm
7	Gymnosperms	Botanical garden	Cycas, Thuja, X-mas tree,

10. Solid Waste Management:

The college activities have very less impact on the environment as the college is very responsive of generating less waste and recycling it and by passing it through the scientific ways that enable the used material to be recycled ensuring that less natural resources are used. Waste generated on the campus is segregated as a solid waste, liquid waste, and e- waste.

For the collection of regular solid waste (Dry and Wet) garbage bins are kept at different places on the campus and in laboratories. The collected solid waste is picked up by Gram Panchayat of Manchar time to time for proper disposal and recycling. Waste from plants is also collected and used in Vermicomposting units for preparation of organic compost.

11. Liquid Waste Management:

Liquid waste are the Liquids such as wastewater, fats, oils or grease (FOG), used oil, liquids, solids, gases, or sludges and hazardous household liquids. These liquids that are hazardous or potentially harmful to human health or the environment. They can also be discarded commercial products classified as "Liquid Industrial Waste" such as cleaning fluids or pesticides, or the by-products of manufacturing processes. There are general regulatory requirements relating to waste, additional regulations apply to generate, store, transport, treat and disposal of hazardous and liquid wastes.

Our college believes in "Go green and keep our campus clean". Our college"s pivotal operations have very less impact on the environment as the institute is very conscious of generating less waste and recycling it by passing it through a system that enables the used material to be reused ensuring that less natural resources are consumed. Environmental initiatives like use of renewable energy, Rain water harvesting, Sewage treatment plants, Zero water discharge, No smoking zone, waste management system etc. have been implemented. Environment consciousness is embodied in the heart of the college by tree plantations from NSS/ NCC every year which is the predominant motive of the management to maintain the pristine purity and beauty of the college and also to provide a congenial atmosphere for the academic and non-academic pursuit

The liquid wastes generated in the campus include Sewage, Laboratory, Hostel and canteen effluent waste. The above waste is transferred through pipes from different laboratories and through soak pit tank stored in big tank. The laboratory waste water does not contain hazardous chemicals and periodical monitoring is done by the maintenance team.

The waste chemicals mixed water from laboratory passes through concealed pipe line into soak pit & recycled water is used for the watering trees or non-potable usage.

Liquids are diluted by getting mixed with the washroom and toilet liquid wastes in to the common drainage.

Types of liquid waste

- Waste water
- Fats and oils
- Sewage and sludge
- Hazardous household liquids
- Organic wastewater
- Inorganic wastewater

Our liquid waste treatment options:

Chemical and physical treatment to separate contaminants from water, enabling both to be recycled by different processes. We communicate to the experience and expertise to handle our liquid waste. Different cost-effective solutions are used to protect the environmentand help us to run our college smoothly.

12. E-Waste Management:

E-Waste, electronic waste comprises of waste generated from used electronic devices and house hold appliances which are not fit for their original intended use.

Aim and objective:

E-waste is the future coming environmental problem will create hazards to our environment, it is non-degradable waste can pollute water, soil and air.

With keeping this view we are aware about destructive material mainly metal, insulating materials present in the e-waste like CD, scrap, mobile like devices, computer waste like wiring, metals, and unused pen drive.

Items and their Toxic Components

Sr. No	Item	Components
1	Refrigerator	Cfc/Hc/Rubber
2	Pc And Laptops	Crt, Fluorescent Lamp, Copper
3	Television	Metal, Crt, Plastic, Brf
4	Washing Machine	Rubber, Electric Wire, Metal And Motor
5	Computer Batteries	Cadmium
6	Capacitor And Transformer	Pbc
7	Printed Circuit Board	Lead And Cadmium
8	Cathod Ray Tubes	Lead Oxide And Cd
9	Cable Insulation / Coating	Pvc
10	Switches And Flat Screen Monitor	Mercury

Activity / Observations:

With keeping view to minimize the pollution created through the e-waste, we have carried out the scientific disposal of e-waste by two ways

1) Collection of e- waste in e- waste box
2) Reuse of the component of unused electronic devices.

Collection of E-Waste:

We have installed e- waste box it the Electronics laboratory, and our students, staff put unused electronic devices and component like CD, PD, memory card, sim card, etc.it also collected and few of reuse and remaining e-waste is given to e-waste scrap purchaser for proper reuse and disposal of such e-waste. Awareness is done by electronic subject faculty members to class to class by telling about e-waste and its impact on environment.

This activity runs throughout the year and e-waste is collected in e-waste box, On 10 December 2018 in Campaign of e- waste collection, total 8 kg of e- waste was collected and out of this some was reused for preparation of best from waste activity. And some items were repaired.

For the scientific disposal of the e-waste, we are in the process of MOU with the "**Kuldeep E- Waste Disposals"** approved e-waste disposal agency.

Recommendations:

1. Always purchase recycled resources where these are both suitable and available.
2. Reuse devices after repairing.

13. Rain Water Harvesting:

The rain water harvesting is simple collection or storing of water through scientific techniques from the areas where the rain falls. It involves utilization of rain water for the domestic of agricultural purpose. The method of rain water harvesting has been into practice since ancient times. It is for the best possible way to conserve water and harvesting has been into practice since ancient times. It is as far the best possible way to conserve water awaken the society towards the importance of water. The method is simple and cost effective too. People usually make complaints about the lack of water during the monsoon lots of water goes waste into gutters so,

Rain-water harvesting proves that it is effective way to conserve water. We collect the rain water into tanks and prevent it from flowing into drains and being wasted. Rain water harvesting comprises of storage of water recharging through the technical process.

Aims and Objectives:

Aim:

1) Conservation of fresh water
2) Increase the ground water level

Objectives:

1) To arrest ground water decline and augment ground water.
2) To conserve surface water runoff during monsoon.
3) To reduce soil erosion.

Activity / Observations:

Rain Water is primary source of fresh water, in our WERC campus the rainwater harvesting program activity is conducted in **Two** Ways:

a) Rain water discharge in trenches in garden and old dry bore.
b) Rain water harvesting for laboratory as replacement of distilled water.

1) College campus is of 18 acres, with construction of College, Library, hostel and canteen building. Maximum rain water is harvested in campus by construction of trenches in campus garden and remaining water is diverted to the dry bore well / Pits for its recharge with rain water leads to increase ground water level.
2) In College campus two locations are identified and Pits are made constructed near the dry bores, in rainy season water is collected and discharged for percolation it enhances the ground water level.
3) Rain water is collected every year from roof of the building, after filtration it is used as distilled water for science laboratory of Chemistry, Physics, Botany and Zoology.

Table: Use of rain water harvested in laboratory

Year	Water Collection In Liter For Laboratory
2014-15	2500
2015-16	2600
2016-17	3000
2017-18	4000
2018-19	4000

The college is situated in a drought-prone declared area of Maharashtra. The importance of water well known for the local people and the college student and also the staff, so to overcome water scarcity rain water harvesting attempts are important. The college campus has different types of rainwater harvesting units. These units are scientifically well equipped.

Rooftop water from new and old building blocks are collected and taken into bore-well recharge pits. Check Lake and bore-well are recharged by rainwater. Department of Chemistry collects around 40,000 liters of rooftop rainwater from Chemistry laboratories every year and it is used as distilled water for experiments / practical‟s in science laboratories. This is the most cost-effective way of rainwater harvesting. Since there is no energy expenditure on transportation and distribution of water, energy is also conserved.

Recommendations:-

1. Increase the Pits for rain water harvesting.
2. Construct the underground tank for the storage of rain water harvest.

14. Energy Conservation:

Aim:

1) To minimize the use of natural resources
2) Conservation of energy

Objective:

1) To save non-conventionally produce electric energy
2) Use of conventional source of energy
3) Minimization of electric expenses

Activity/ Observations:

Energy conservation is the burning problem of the country, there is pressure due to great demand for electricity and shortage of this non-conventional source of energy.

We have implemented energy conservation programs with three ways

1) Use of LED tube in the college building
2) Use of solar water heater
3) Solar power plant for electricity production

15. Environment Awareness Program:

Aim and objective:

- **To plan, organize** and implement programs 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 programs for strengthen the existing ecological and environment related training infrastructure.
- **To provide** consultancy to other institutions and organizations in for the establishment of similar institutions with a view to bringing sustainability.
- **To organizer training programs** for vocationalist of environmental careers.
- **To strengthen** Global Environmental Education Programs for standardization of greening-activities.
- **To introduce** environmental education programs 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.

Sr. No.	Activity Name	Date
1	Watershed Management Visit	24 August 2016
2	Disaster Management 3 Day Program	09/01/2017 To 11/01/2017
3	Nursery Visit	28 February 2017
4	Tree Plantation	15 July 2017
5	Ozone Day	16 Sep. 2017
6	Nala Bunding Visit	7 March 2018
7	Disaster Management 1 Day Program	11 December 2019
8	Tree Plantation By Department Of Geography	16 Sep. 2019
9	Modern Agriculture In Shrigonda	26 December 2019
10	Environmental Awareness	14 Jan. 2020
11	Importance And Conservation Of Plants	14 Jan.2020
12	Tree Plantation By NSS Students	23 June 2021

MATHS	2	40	2	150	1	200	1	700	1090
PSYCHOLOGY	1	20	1	75	1	200	1	700	995
HISTORY	1	20	1	75	1	200	1	700	995
STATIONARY ROOM	1	20	1	75	0	0	1	700	795
MAIN BUILDING PORCH	13	260	0	0	0	0	0	0	260
MAIN BUILDING street light	10	500	0	0	0	0	0	0	500
KARMVEER AUDITORIUM	40	800	8	600	3	600	0	0	2000

A BUILDING									
A2	1	20	1	75	0	0	0	0	95
A3	1	20	1	75	0	0	0	0	95
A4	1	20	1	75	0	0	0	0	95
A5	1	20	1	75	0	0	0	0	95
A6	4	80	3	225	1	200	0	0	505
A8	5	100	2	150	1	200	0	0	450
A9	3	60	2	150	0	0	0	0	210
A10	2	40	2	150	1	200	11	9700	10090
A12	7	140	3	225	0	0	0	0	365
A12 (A)	2	40	2	150	0	0	0	0	190
A13	1	20	1	75	0	0	0	0	95
A14	1	20	1	75	0	0	0	0	95
A15	1	20	1	75	0	0	0	0	95
A16	2	40	2	150	1	200	0	0	390
A17	1	20	1	75	0	0	0	0	95
A18	1	20	1	75	0	0	0	0	95
LADIES TOILET	4	80	0	0	0	0	0	0	80
GEOGRAPHY	2	40	2	150	1	200	0	0	390
CHEMESTRIY	10	200	7	525	2	400	8	16000	17125
ELECTRICALS	2	40	1	75	7	1400	0	0	1515
PHYSICS	13	260	7	525	10	2000	0	0	2785
BOTONY	12	240	7	525	4	800	10	14050	15615
ZOOLOGY	3	60	6	450	3	600	8	11400	12510
BIOLOGY	6	120	0	0	0	0	0	0	120

B BUILDING									
B01	2	40	2	150	1	200	0	0	390
B02	2	40	2	150	0	0	0	0	190
TOILET	4	80	1	75	0	0	1	2000	2155
B03	3	60	3	225	1	200	0	0	485
B04	3	60	2	150	0	0	0	0	210
NCC OFFICE	3	60	3	225	1	200	0	0	485
JUNIOR COLLAGE STFF ROOM	1	20	1	75	0	0	0	0	95
B14	3	60	2	150	1	200	0	0	410
B13	2	40	2	150	0	0	0	0	190
B12	2	40	2	150	0	0	0	0	190
B11	3	60	2	150	1	200	0	0	410
SENIOR COLLAGE STAFF ROOM	2	40	2	150	0	0	0	0	190
LIBRARY BUILDING									
Library	33	660	12	900	10	2000	3	2000	5560
TOILET/BATHROOM	8	160	0	0	0		0	0	160
COMMERCE	11	220	8	600	16	3200	2	1400	5420
ENGLISH	6	120	5	375	17	3400	2	1400	5295
BIOTECH	17	340	5	375	1	200	8	10900	11815
B VOC DEP A/C TAXATION	16	320	6	450	21	4200	1	700	5670
COMPETITIVE EXAM	18	360	8	600	1	200	5	7500	8660
B VOC DEP FOOD TECH	8	160	4	300	2	400	15	22250	23110

SCIENCE BUILDING JUNIOR									
STAFF ROOM	2	40	1	75	1	200	1	700	1015
LADIES ROOM	3	60	1	75	0	0	1	500	635
C02	9	180	4	300	0	0	0	0	480
C03	9	180	4	300	1	200	0	0	680
C04(A)	3	60	2	150	0	0	0	0	210
C04(B)	4	80	2	150	1	200	0	0	430
C05(A)	3	60	2	150	0	0	0	0	210
C05(B)	6	120	2	150	0	0	0	0	270
STEET LIGHT	5	100		0	0	0	0	0	100
GATE WATCHMEN	3	120	1	75	0	0	0	0	195
CANTEEN	4	80	2	150	0	0	2	1500	1730
GYM KHANA	11	220	4	300	1	200	5	3850	4570
ANIKET BHAVAN	22	440	9	675	1	200	0	700	2015
GUEST HOUSE	20	400	6	450	2	400	5	6000	7250
LADIES HOSTEL									
OUTER PASSAGE	14	280	0	0	0	0	0	0	280
GROUND FLOOR	20	400	13	975	1	200	2	2200	3775
FIRST FLOOR	42	840	11	825	0	0	0	0	1665
SECOND FLOOR	42	840	11	825	0	0	0	0	1665
ROAD STREET LIGHT	20	640	0	0	0	0	0	0	640
TOTAL									**200665**