

#### Shreeyash Pratishthan's

#### Shreeyash College of Engineering & Technology, Aurangabad.

(An ISO 9001 : 2015, Certified Institute)

Approved by : AICTE, New Delhi, Recognised by : Govt, of Maharashtra & DTE, Mumbal.

Affiliated to : Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.

Dr. Babasaheb Ambedkar Technological University, Lonere, Raigad.



## **Education amidst the nature**

Acquiring Technical Knowledge in an ecologically friendly environment

The case of Shreeyash Pratishthan's

Shreeyash College of Engineering & Technology, Aurangabad



## Ar. Nahida Abdulla

Based on the Green Audit Study 2016-2021

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#### An Ecologically Sound Institution An analytic approach in a semi-urban area

By

Ar. Nahida Abdulla

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#### Disclaimer

Green Audit Team has prepared this report for **Shreeyash Pratishthan's Shreeyash College of Engineering & Technology, Satara Parisar, Beed By- Pass Road, Aurangabad – 431010** based on input data submitted by the College analysed by the team to the best of their abilities.

The details have been consolidated and thoroughly studied as per the various guidelines for Green Buildings available in National Standards, the report has thereby been generated based on comparative analysis of the existing facilities and the benchmarks. The suggestions derived as a result of the inspection and research as per inputs which would further enhance and develop a Healthy and Sustainable Institution.

These can be implemented phase wise or as a whole warranty or undertaking, express or implied is made and no responsibility is accepted by Audit Team in this report or for any direct or consequential loss arising from any use of the information, statements or forecasts in the report.

The audit is a thorough study based on the inventory and on-site investigation of data collected over a period of time and should not be used for any legal action. This is the property of Greenvio Solutions and should not be copied.

The Report is prepared by the Team of Greenvio Solutions under their brand and department – Sustainable Academe as Consultancy firm along with Ar. Nahida Shaikh as an Accredited Green Building Professional.

#### **Greenvio Solutions**

Developing Healthy and Sustainable Environments
We are an Environmental and Architectural Design Consultancy firm
Sustainable Academe
is our department for conducting Audits
Palghar District, Maharashtra-401208
sustainableacademe@gmail.com

## **Acknowledgement**

Green Audit Assessment Team thanks the **Shreeyash Pratishthan's Shreeyash College of Engineering & Technology** assigning this important work of Green
Audit. We appreciate the cooperation extended to our team during the entire process.

Our special thanks are due to Hon'ble Mr. Basawaraj V. Mangrule, Chairman; Mrs. Sangeeta B. Mangrule, Secretary; Mr. Indrajit P. Thorat, Vice Chairman; Members - Ms. Aishwarya Basawaraj Mangrule, Shri. Vishwanath Sharanappa Mangrule, Mrs. Shushilabai Vishwanath Mangrule, Mr. Mallikarjun Maleshappa Patil, Mrs. Shushila Mallikarjun Patil, Mr. Sunil Mallikarjun Patil and everyone from the Management.

Our heartfelt thanks to Chairman of the entire process Mr. Prabhakar Mashalkar, Campus Director and Dr. R.S. Pawar, Principal for the valuable inputs.

We are also thankful to College's Task force the faculty members who have collected data required Mrs. S. H. Joshi, Vice Principal; Mr. S. A. Behare, H.O.D Civil; Mr. V. W. Patil, IQAC Co-ordinator and Dr. Masarrat Sultana, Main Co-ordinator.

The kind gesture for the inventory and data collection of Mr. A. D. Lahane, Mr. Mahesh S. Hudekar, Mr. Datta Khade, Dr. H. A. Khawal and Mrs. Rakhi Rajvaidya is quite commendable

We highly appreciate the assistance of Mr. Ganesh Linar, Mr. Vishal Vitekar and Mr. Baba Farkade for their support while collecting the data.

#### **Sustainable Academe**

Brand of Greenvio Solutions, Palghar District, Maharashtra- 401208

### About the firm

**Greenvio Solutions** is registered in Naigaon, Palghar district as an Environmental Design Consultancy firm. Our motto is Developing Healthy and Sustainable Environments. We provide consultancy services for Green Building Audits, Trainings, Architecture, Interior Designing. Our team comprises of Architects, Green Building Consultants, Engineers, Green Building Professionals and our staff who are an essential part of our Team. We offer our service as Architects and Green Building Consultants in conducting the Green Audit for Institutions Pan India.

**Sustainable Academe** is our brand to make Institutions a Sustainable Academic Institution by providing services for <u>Green Audits</u>, Tree plantations, Capacity Building of Students, Eco clubs, Commissioning of services as per Reports, Green Building Certifications for IGBC, ASSOCHAM and others.

#### **Greenvio Solutions**

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sustainableacademe@gmail.com

#### Foreword

Green Audit of an institution has become a paramount important for self-assessment of the institution which reflects the role of the institution in mitigating the present environmental problems. The college has been putting efforts to keep our environment clean since its inception. Therefore, the purpose of the present green audit is to identify, quantify, describe and prioritize framework of Environment Sustainability in compliance with the applicable regulations, policies and standards. As a part of this Green audit is one such step which is taken up by Shreeyash Pratishthan's Shreeyash College of Engineering & Technology, Aurangabad so that an eco-friendly atmosphere can be created and maintained. Implementation of environmental policy provides a chance to exploit our opportunities for better performance in future and will help us to develop a sustainable campus.

I am very happy to write the foreword for this Green Audit Report of Shreeyash Pratishthan's Shreeyash College of Engineering & Technology, Aurangabad. It is my pleasure to recognize the sincere efforts of the Green Auditor Ar. Nahida Shaikh and her Committee for their best efforts in preparing this comprehensive report. I also congratulate my faculties Dr. Masarrat Sultana and Prof. A. D. Lahane for their contribution for this report. I do hope that the Green Audit Report will guide all the stakeholders of this college to define themselves in their future activities and will motivate all to put green steps ahead in future.

Principal

Dr. R.S. Pawar

Principal
Shreeyash College of Engineerin
& Technology Aurangabad



## Message from Director's desk

Green audit serve as a means to identify opportunities to sustainable development practices, enhance environmental quality, improve health, hygiene and safety, reduce liabilities and save money and achieve values of virtue. Environmental audits can be a highly valuable tool for college in a wide range of ways to improve their environmental and economic performance and reputation while reducing wastages and operating costs. It will also help the college to compare its programmes and activities with other peer institutions, identify areas for improvement and prioritise the implementation of future projects. It will help us to identify and generate prospects to boost environment quality, expand hygiene and health measures, improve environmental protection and augment sustainable development practices. Green audit was carried out by Shreeyash Pratishthan's Shreeyash College of Engineering & Technology, Aurangabad to analyze environmental practices within and outside the college campus so as to have an impact on the eco-friendly ambience. Conservation of water in the campus also has increased the nearby water table.

I feel very happy to write the message for this Green Audit Report of Shreeyash Pratishthan's Shreeyash College of Engineering & Technology, Aurangabad It is my pleasure to recognize the sincere efforts of the Green Auditor Ar. Nahida Shaikh and her Committee for their best efforts of audit, comments and report. I also congratulate my faculties Dr. Masarrat Sultana and Prof. A. D. Lahane for their contribution for the preparation for audit and successful audit. This report will help us in preserving and enhancing environment of our campus. The campus also serves as a tourist place for students and environment lovers where we conserve and protect our biodiversity. It can make a tremendous impact on student health and learning in the college and the environment enjoying natural beauty. It becomes essential to adopt the system of the Green Campus for the institute which will lead for sustainable development and to contribute our little effort in controlling global warming issue.

Director

Mr. Prabhakar Mashalkar



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### 1. Introduction

#### 1.1 About Shreeyash Pratishthan

The Prathisthan has implemented the goal of educating the students in the best way possible by uplifting the academic status of the students through quality Technical education for overall community development. Meticulous joint efforts of the students and staff have made the institution one of the most sustainable premises in the locality. It is one of the premier Educational Societies in the country including some of the most distinguished and eminent Institutions and providing quality education with best state of the art facility and Infrastructure to the students.

#### 1.2 Vision and Mission Statement of College

**Our Vision** – To be recognized internationally for excellence in Education and Research to benefit the society.

Our Mission - it includes the following aspects

- · To create a Technology savvy campus to impart value based education.
- To develop an Environment to faster technology incubation and relevant Research and Development.
- To improve the satisfaction level of all stakeholders.

#### 1.3 Institutions in the premises

The Premises is situated amidst the landscape serene of the Marathwada region with immense peace and calmness in the surroundings. It is locational suitable to the nearby recreational amenities such Hospital, Fire Station and much more. During the entire day schedule there is smooth transition of internal student traffic management which is highly commendable.

It was established in 2008. The esteemed Institute has the following Goals and objectives.

- <u>To provide a sound academic environment to students for a complete learning experience.</u>
- To train the staff for all-round development of academic record.

- To improve the industry institute interaction.
- To promote R&D activity.
- To strive for student's placement.
- To organize co-curricular and extra-curricular activities.
- To improve personality of teaching and non-teaching staff to improve internal communication.
- To increase the quality consciousness at all levels of the Institute by conducting monthly review meeting.

The aim of the college is to continuously enhance the teaching methods in order to provide students with an opportunity for their all-round development. It also strives for excellence in academics and makes an effort to induce passion for learning along with the inspiration for decisive thinking and assessment, thereby helping them to become the best professionals in their chosen careers.

The institution offers the following courses affiliated to Dr. Babasaheb Ambedkar Technological University, Lonere.

- · Four years Bachelor degree in Technology (B. Tech)
  - Civil Engineering
  - Mechanical Engineering
  - Electrical Engineering
  - Computer Science Engineering
  - Electronics & Telecommunication Engineering

#### Two years Masters degree

- **Masters of Techology (M. Tech)** in Structural Engineering/ Mechanical Engineering/ Computer Science & Engineering/ Electronics & Telecommunication Engineering
- Masters in Business Administration (M.B.A) The institute is affiliated to Dr. Babasaheb Ambedkar Marathwada University, Aurangabad.

The College aims at training young women and men to be competent, committed and compassionate, and lead in all walks of life.

#### 1.4 Assessment of the College

**University -** The institution is affiliated to Dr. Babasaheb Ambedkar Technological University, Lonere.

**NAAC -** The following are details of the reaccreditation of the Shreeyash Pratishthan's Shreeyash College of Engineering & Technology.

- Cycle First cycle
- CGPI 1.79
- Grade C
- Year 2016

The college is due to enter its Second cycle of NAAC soon.

UGC - It is recognised under section 2(f) & 12(b) of the UGC Act 1956

**AITCE** – As College offers Technical courses affiliated to Dr. Babasaheb Ambedkar Technological University, Lonere and Maharashtra State Board of Technical Education, Mumbai it has taken relevant approvals from All India Council of Technical Education (AICTE), New Delhi.

**DTE** – As it offers a Professional Course it is affiliated and recognised under Directorate of Technical Education (DTE), Maharashtra

**ISO** – The College is <u>ISO 9000;2015 (Quality Management System) Certified</u> by SP Certification Limited, London in 2019-20

#### 1.5 Awards and Achievements of the College

The college has a tremendous track record of excellence in Built form and educational services provided, below are some of the achievements of the prestigious Institute.

- ISTE Faculty Chapter, 2016
- The Indian Society For Technical Education Certificate For Institutional Member, 2016
- Dewang Mehta National Education Award's Education Leadership Award, 2017
- Tata Technologies Ready Engineer Certificate for Running its Flagship CSR Program, 2018
- Dewang Mehta National Education Award's Education Leadership Award, 2019
- Quality Circle Forum Certificate, 2019







## 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 Jeam is pleased to declare the Shreeyash Pratishthan's

Shreeyash College of Engineering and Jechnology Salara Parisar, Aurangabad,

affiliated to Dr. Babasaheb Ambedkar Marathwada University,

Maharashtra as Accredited

with CSPA of 1.79 on seven point scale

at G grade

valid up to September 15, 2021

Date: September 16, 2016





NAAC Accreditation Certificate



## All India Council for Technical Education (A Statutory body under Ministry of Education, Govt. of India) Nelson Mandela Marg, Vasant Kunj, New Delhi-110070 Website: www.aicte-india.org



#### APPROVAL PROCESS 2021-22

#### Extension of Approval (EoA)

F.No. Western/1-9317782162/2021/EOA

The Secretary, Tech. & Higher Education Deptt. Govt. of Maharashta, Mantralaya, Annexe Building, Mumbai-400032

Sub: Extension of Approval for the Academic Year 2021-22

Ref. Application of the Institution for Extension of Approval for the Academic Year 2021-22

In terms of the provisions under the All India Council for Technical Education (Grant of Approvals for Technical Education) (1st Amendment)
Regulations, 2021 notified on 24th February 2021 and other notifications as applicable and published from time to time, I am directed to convey the approval to

Permanent Id	1-7854956	Application Id	1-9317782162
Name of the Institution Auniversity	SHREEYASH PRATISHTHAN'S, SHREEYASH COLLEGE OF ENGINEERING & TECHNOLOGY	Name of the Society/Trust	SHREEYASH PRATISHTHAN, AURANGABAD
Institution /University Address	GUT NO. 258, SATARA TANDA, AURANGABAD 431005 DIST: AURANGABAD MAHARASHTRA, AURANGABAD, AURANGABAD, Maharashtra, 431005	Society/Trust Address	AURANGABAD AURANGABAD, M aharashtra, 431005
Institution /University Type	Private-Self Financing	Region	Western

#### To conduct following Programs / Courses with the Intake indicated below for the Academic Year 2021-22

Program	Level	Course	Affiliating Body (University /Body)	Intake Approved for 2020-21	Intake Approved for 2021-22	NRI Approval Status	FN / Gulf quota/ OCI Approval Status
ENGINEERING AND TECHNOLOGY	UNDER GRADUATE	COMPUTER SCIENCE AND ENGINEERING	Dr. Babesaheb Ambedkar Technological University, Lonere	60	60	NA	NA
MANAGEMENT	POST GRADUATE	мва	Dr. Babasahab Ambedkar Marathwada University, Aurangabad	60	60	NA	NA
ENGINEERING AND TECHNOLOGY	POST GRADUATE	COMPUTER SCIENCE AND ENGINEERING	Dr. Babasaheb Ambedkar Technological University, Lonere	18	18	NA	NA

Application No. 1-9317782162 ALL INDIA COUNCIL FOR TECHNICAL EDUCATION Note: This is a Computer generated Report. No signature is required. Printed By: e38808173

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ENGINEERING AND TECHNOLOGY	POST GRADUATE	MECHANICAL ENGINEERING	Dr. Babasaheb Ambedkar Technological University, Lonere	18	18	NA	NA
ENGINEERING AND TECHNOLOGY	UNDER GRADUATE	CML ENGINEERING	Dr. Babasaheb Ambedkar Technological University, Lonere	120	120	NA	NA
ENGINEERING AND TECHNOLOGY	POST GRADUATE	STRUCTURAL ENGINEERING	Dr. Babasaheb Ambedkar Technological University, Lonere	18	18	NA	NA
ENGINEERING AND TECHNOLOGY	UNDER GRADUATE	MECHANICAL ENGINEERING	Dr. Babasaheb Ambedkar Technological University, Lonere	120	120	NA	NA
ENGINEERING AND TECHNOLOGY	UNDER GRADUATE	ELECTRONICS AND COMPUTER ENGINEERING	Dr. Babasaheb Ambedkar Technological University, Lonere	60	60	NA	NA
ENGINEERING AND TECHNOLOGY	UNDER GRADUATE	ELECTRICAL ENGINEERING	Dr. Babasaheb Ambedkar Technological University, Lonere	60	60	NA	NA
ENGINEERING AND TECHNOLOGY	POST GRADUATE	ELECTRONICS AND TELECOMMUNI CATIONS ENGINEERING	Dr. Babasaheb Ambedkar Technological University, Lonere	18	18	NA	NA
ENGINEERING AND TECHNOLOGY	DIPLOMA	CIVIL ENGINEERING	Maharashtra State Board of Technical Education, Mumbal	120	120	NA	NA
ENGINEERING AND TECHNOLOGY	DIPLOMA	MECHANICAL ENGINEERING	Maharashtra State Board of Technical Education, Mumbei	120	120	NA	NA
ENGINEERING AND TECHNOLOGY	DIPLOMA	COMPUTER ENGINEERING	Maharashtra State Board of Technical Education, Mumbal	60	60	NA	NA.
ENGINEERING AND TECHNOLOGY	DIPLOMA	ELECTRONICS & TELE- COMMUNICATIO N ENGINEERING	Maharashtra State Board of Technical Education, Mumbal	60	60	NA	NA
ENGINEERING AND TECHNOLOGY	DIPLOMA	ELECTRICAL ENGINEERING	Maharashtra State Board of Technical Education, Mumbai	60	60	NA	NA

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It is mandatory to comply with all the essential requirements as given in APH 2021-22 (Appendix 6)

#### Important Instructions

- 1. The State Government/ UT/ Directorate of Technical Education/ Directorate of Medical Education shall ensure that 10% of reservation for Economically Weaker Section (EWS) as per the reservation policy for admission, operational from the Academic year 2019-20 is implemented without affecting the reservation percentages of SC/ ST/ OSC/ General. However, this would not be applicable in the case of Minorry Institutions reterred to the Clause (1) of Article 30 of Constitution of India. Such Institution shall be permitted to increase in annual permitted strength over a maximum period of two years.
- The Institution offering courses earlier in the Regular Shift, First Shift, Second Shift/Part Time now amalgamated as total intake shall have to fulfil all facilities such as Infrastructure, Faculty and other requirements as per the norms specified in the Approval Process Handbook 2021-22 for the Total Approval Intake Further, the Institutions Deemed to be Universities institutions having Accreditation/ Autonomy status shall have to maintain the Faculty: Student ratio as specified in the Approval Process Handbook.
- Strict compliance of Anti-Ragging Regulation, Establishment of Committee for SC/ST, Establishment of Infernal Complaint Committee (ICC), Establishment of Online Grievence Redressal Mechanism, Barrier Free Built Environment for disabled and elderly persons, Free and Safety Certificate should be maintained as per the provisions made in Approval Process Handbook and AICTE Regulation notified from time to time.
- In case of any differences in content in this Computer generated Extension of Approval Letter, the content/information as approved by the Executive Council / General Council as available on the record of AICTE shall be final and binding.

Copy \*\* to:
1. The Director of Technical Education\*\*, Maharashtra

2 The Registrar\*\*,

Dr. Babasaheb Ambedkar Technological University, Lonere

 The Principal / Director, SHREEYASH PRATISHTHAN'S, SHREEYASH COLLEGE OF ENGINEERING & TECHNOLOGY Gut No. 258, Satara Tanda, Aurangabad-431005 Dist: Aurangabad Maharashtra, Aurangabad Aurangabad, Maharashtra,431005

4. The Secretary / Chairman,

AURANGABAD AURANGABAD Maharashtra, 431005

 The Regional Officer, All India Council for Technical Education Industrial Assurance Building 2nd Floor, Nariman Road Mumbai - 400 020, Maharashtra

Application No:1-5917782162 ALL INDIA COUNCIL FOR TECHNICAL EDUCATION Note: This is a Computer generated Report. No signature is required. Printed by : ae3888173

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#### 6. Guard File(AICTE)

Note: Validity of the Course details may be verified at http://www.aicte-india.org/

\*\* Individual Approval letter copy will not be communicated through Post/Email. However, consolidated list of Approved Institutions(bulk) will be shared through official Email Address to the concerned Authorities mentioned above.

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Application Not:1-9317782/162 ALL INDIA COUNCIL FOR TECHNICAL EDUCATION Note: This is a Computer generated Report. No signature is required. Printed By a cas2938173

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### 2. Institution overview

### 2.1 Populace analysis for Academic year 2016-17

#### 2.1.1 Students data

The student data (shared by the College) shows there were total of **1125 Undergraduate** and **62 Post Graduate** students occupying the premise.

Branch	First Year	Second Year	Third Year	Fourth Year
Civil Engineering	19	123	87	90
Mechanical Engineering	17	128	116	205
Electronics & Telecommunication Engineering	04	16	05	21
Computer Science Engineering	12	33	08	13
Electrical Engineering	16	68	46	00
Electrical & Power Engineering	00	00	05	93
Total	68	368	267	422

Table 1: Details of Undergraduate students in 2016-17

Data of Post Graduate Students	
Branch	Tota
Masters in Technology (M. Tech)	45
Masters in Business Administration (M.B.A.)	17
Total	62

Table 2: Details of Post Graduate students in 2016-17

#### 2.1.2 Staff data

The data shared the premise had a total of **116** staff members from all branches.

## 2.2 Populace analysis for Academic year 2017-18

#### 2.2.1 Students data

The student data (shared by the College) shows there were total of **923 Undergraduate** and **77 Post Graduate** students occupying the premise.

Branch	First Year	Second Year	Third Year	Fourth Year
Civil Engineering	39	62	84	79
Mechanical Engineering	48	76	118	99
Electronics & Telecommunication Engineering	19	11	18	17
Computer Science Engineering	20	19	35	16
Electrical Engineering	21	34	57	32
Electrical & Power Engineering	00	00	07	12
Total	147	202	319	255

Table 3: Details of Undergraduate students in 2017-18

Data of Post Graduate Students	
Branch	Tota
Masters in Technology (M. Tech)	37
Masters in Business Administration (M.B.A.)	40
Total	77

Table 4: Details of Post Graduate students in 2017-18

#### 2.2.2 Staff data

The data shared the premise had a total of **118** staff members from all branches.

### 2.3 Populace analysis for Academic year 2018-19

#### 2.3.1 Students data

The student data (shared by the College) shows there were total of **976 Undergraduate** and **57 Post Graduate** students occupying the premise.

Details of Under Graduate Students					
Branch	ranch First Second Year Year		Third Year	Fourth Year	
Civil Engineering	13	143	79	118	
Mechanical Engineering	11	92	84	114	
Electronics & Telecommunication Engineering	01	10	07	21	
Computer Science Engineering	25	26	21	38	
Electrical Engineering	18	67	34	50	
Electrical & Power Engineering	00	00	02	02	
Total	68	338	227	343	

Table 5: Details of Undergraduate students in 2018-19

Tota
22
35
57

Table 6: Details of Post Graduate students in 2018-19

#### 2.3.2 Staff data

The data shared the premise had a total of **143** staff members from all branches.

### 2.4 Populace analysis for Academic year 2019-20

#### 2.4.1 Students data

The student data (shared by the College) shows there were total of **1,046 Undergraduate** and **54 Post Graduate** students occupying the premise.

Branch	First Year	Second Year	Third Year	Fourth Year
Civil Engineering	12	142	123	84
Mechanical Engineering	15	131	69	115
Electronics & Telecommunication Engineering	02	31	07	08
Computer Science Engineering	24	62	25	22
Electrical Engineering	07	65	58	43
Electrical & Power Engineering	00	00	00	01
Total	60	431	282	273

Table 7: Details of Undergraduate students in 2019-20

Total
12
42
54

Table 8: Details of Post Graduate students in 2019-20

#### 2.4.2 Staff data

The data shared the premise had a total of **101** staff members from all branches.

### 2.5 Populace analysis for Academic year 2020-21

#### 2.5.1 Students data

The student data (shared by the College) shows there were total of **1,358 Undergraduate** and **108 Post Graduate** students occupying the premise.

Branch	First Year	Second Year	Third Year	Fourth Year
Civil Engineering	25	143	141	125
Mechanical Engineering	27	147	128	72
Electronics & Telecommunication Engineering	12	67	29	07
Computer Science Engineering	54	73	50	25
Electrical Engineering	25	79	56	63
Total	143	509	414	292

Table 9: Details of Undergraduate students in 2020-21

Data of Post Graduate Students		
Branch	Tota	
Masters in Technology (M. Tech)	44	
Masters in Business Administration (M.B.A.)	64	
Total	108	

Table 10: Details of Post Graduate students in 2020-21

#### 2.5.2 Staff data

The data shared the premise had a total of  ${f 118}$  staff members from all branches.

## 2.3 Total Institute Area & College Building Spread Area

The total site area is 53 acres (Including the area belonging to the sister organizations in the premise). For Shreeyash College of Engineering and Technology the plot area covers 10 acres and total built-up area is 1,27,637.16 sq. ft. for approx. 1,584 footfalls.

#### 2.4 Institute Infrastructure

#### 2.4.1 Establishment

The building was established in 2008. The Building is a Reinforced Cement Concrete (RCC) framework building. Overall the Infrastructure of the Building is excellent in terms of the Architecture Design and Green Building Design. The Premise covers quite a few of the requirements for a Green Habitat.

#### 2.4.2 Spatial Organisation

The overall ambience of the College is warm and inviting. The classrooms and other spaces have ample natural ventilation in the form of clear glass windows with fresh air ventilation. The architecture of the building is quite well designed. The colour palette not just helps the building to stand out but also provides an Institutional arena. It balances with the local architecture with the natural landscapes of huge trees all around. The design emphasis on providing calmness to the built form and gradually merges with the serene landscape.

There are false ceiling at the entrance lobby and seminar hall. The floor to floor height is 12. There is provision for lifts in the premise along with CCTV, Fire extinguishers, first aid box and amenities such as courtyards, libraries, serene landscape, open areas, gardens. The room-wise details are mentioned below:

Sr. No.	Room Name	Floor
1	001A	Underground
2	001B	Underground
3	2	Underground
4	3	Underground
5	4	Underground
6	5	Underground
7	006A	Underground
8	006B	Underground
9	7	Underground
10	8	Underground

11	9	Underground
12	10	Underground
13	11	Underground
14	12	Underground
15	13	Underground
16	101	Ground
17	102	Ground
18	103	Ground
19	104	Ground
20	105	Ground
21	106	Ground
22	107	Ground
23	108	Ground
24	109	Ground
25	110	Ground
26	111	Ground
27	112	Ground
28	113	Ground
29	114	Ground
30	115	Ground
31	116	Ground
32	117	Ground
33	118	Ground
34	119	Ground
35	120	Ground
36	121	Ground
37	122	Ground
38	123A	Ground
39	123B	Ground
40	124	Ground
41	125	Ground
42	126	Ground
43	127	Ground
44	128	Ground
45	129	Ground
46	130	Ground
47	201	First Floor
48	202	First Floor
49	203	First Floor
50	204	First Floor
51	205	First Floor
52	206	First Floor
53	207	First Floor
54	208	First Floor
55	209	First Floor
56	210	First Floor
57	211	First Floor
58	212	First Floor

59	213	First Floor
60	214	First Floor
61	215	First Floor
62	216	First Floor
63	217	First Floor
64	218	First Floor
65	219	First Floor
66	220	First Floor
67	221	First Floor
68	222	First Floor
69	223	First Floor
70	224	First Floor
71	225	First Floor
72	226	First Floor
73	227	First Floor
74	228	First Floor
75	229	First Floor
76	230	First Floor
77	301	Second Floor
78	302	Second Floor
79	303	Second Floor
80	304	Second Floor
81	305	Second Floor
82	306	Second Floor
83	307	Second Floor
84	308	Second Floor
85	309	Second Floor
86	310	Second Floor
87	311	Second Floor
88	312	Second Floor
89	313	Second Floor
90	314	Second Floor
91	315	Second Floor
92	316	Second Floor
93	317	Second Floor
94	318	Second Floor
95	319	Second Floor
96	320	Second Floor
97	321	Second Floor
98	322	Second Floor
99	323	Second Floor
100	324	Second Floor
101	325	Second Floor
102	326	Second Floor
103	327	Second Floor
104	328	Second Floor
105	329	Second Floor
106	330	Second Floor
200	550	occoria i iooi

107	331	Second Floor
108	332	Second Floor
109	333	Second Floor
110	334	Second Floor
101	335	Second Floor
102	WS	Ground Floor
		Underground
102	Chairman	Ground Floor
103	Staircase	First Floor
		Second Floor
		Underground
104	Docenna	Ground Floor
104	Passage	First Floor
		Second Floor
105	Outdoor	Ground
106	Lift	Underground

Table 11: Room-wise space details

#### 2.4.3 Operation and Maintenance of the premises

The interview session with the staff regarding the operation and working hours is summarised in the table. The Institutions are open Monday to Saturday for full day. Sunday is an off for all.

S. No.	Section	Spaces	Time	Hours / day	Days in a year
1	Main Institutional College	Student areas and Teaching faculty	10:00 a.m. to 5:30 p.m.	7.5	180
2	General areas	Admin areas and library, Passage, lift, staircase, toilet	09:45 a.m. to 5:30 p.m.	7.75	220
3	Hostels	Residential	No entry exit after 7.30pm	9.5 hours	180

Table 12: Schedule of the timings of the premises

The guest house facility is occasional and very rare. The hostel is currently closed because of pandemic.

## 3. Green Building Study Audit

#### 3.1 About the Green Building Study Audit

It is a systematic study of the aspects which make the Institution a sustainable and healthy premise for its inhabitants.

#### 3.2 Analysis for the Green Building Study Audit

#### The procedure included detailed verification for the following:

#### **Energy Audit**

- · Analysis of the Lights, Fans, AC, Equipment
- Renewable energy
- · Scope for reducing the current energy bills if any
- · Improvement in the thermal comfort of the campus

#### **Green Audit**

- · Green initiatives
- Hygiene audit
- Water Audit Analysis of the current water consumption of campus; Scope to include Rain water harvesting and Waste water treatment in campus
- Waste Audit Current waste produced, its segregation and usage; Strategies to be adopted for waste management and awareness

#### **Environmental Audit**

- · Analysis of the current landscape + hardscape of campus
- · Analysis of the flora and fauna of campus
- · Strategies adopted at present to enhance vegetation
- Measures that can be adopted for ecological improvement of campus

#### 3.3 Strategy adopted for Green Building Study Audit

The strategies included data collection from admin department, actual inventory, investigation to check the operation and maintenance, analysis of the data collected and preparation of the Report.

#### 3.4 Timeline of the activities for Green Building Study Audit

- 20 July 2021 Discussion with the College
- 22 July 2021 Initiation by the College to conduct Audit
- 21 August 2021 Data submitted by College
- 18 August 2021 Survey of the Student and staff submitted
- 28 August 2021 Submission of draft Report
- 11 September 2021 Submission of Main Report

## 4. Site Study

The following listed are some of the positive site elements which are beneficial to the college in terms of tangible and intangible benefits.

- Location The Shreeyash Pratishthan's Shreeyash College of Engineering & Technology, Satara Parisar, Beed By-Pass Road, Aurangabad – 431010 and falls under the Municipal Corporation, Aurangabad.
- Neighbourhood context The premise is surrounding by open spaces and as
  it is a very huge Institution on the immediate surroundings of the site.
- Natural physical features The premise includes a rich biodiversity and huge number of plants in the adjacent open space. The site does not have major different in the land levels (contours). There is slope in land level which has helped rainwater to flow naturally by gravity from one pond to another pond. This has proved to be beneficial to college as the rainwater is diverted through pipes into ground and it has helped ground water recharge for the well water over the years and also increased the water table of nearby areas as informed by the College.
- Manmade features The premise is situated in a rural area amidst industrial
  and residential areas with appropriate proximity to necessary amenities. There
  is sufficient appreciation space for entrance. The materials used for
  construction are RCC and the landscaping includes innumerable natural trees as
  well as potted plants.
- Circulation There is a smooth transition of pedestrian traffic inside the premises due to the large entrance gate and the huge open space where vehicles of students and staff is parked.
- Climate Aurangabad features a semiarid climate under the Köppen climate classification. As on 2 July 2021 the average temperature is 27°C.

(Source: https://www.accuweather.com/en/in/aurangabad/)

## The prestigious Institute of Shreeyash College of Engineering & Technology



The overall view of the Institution

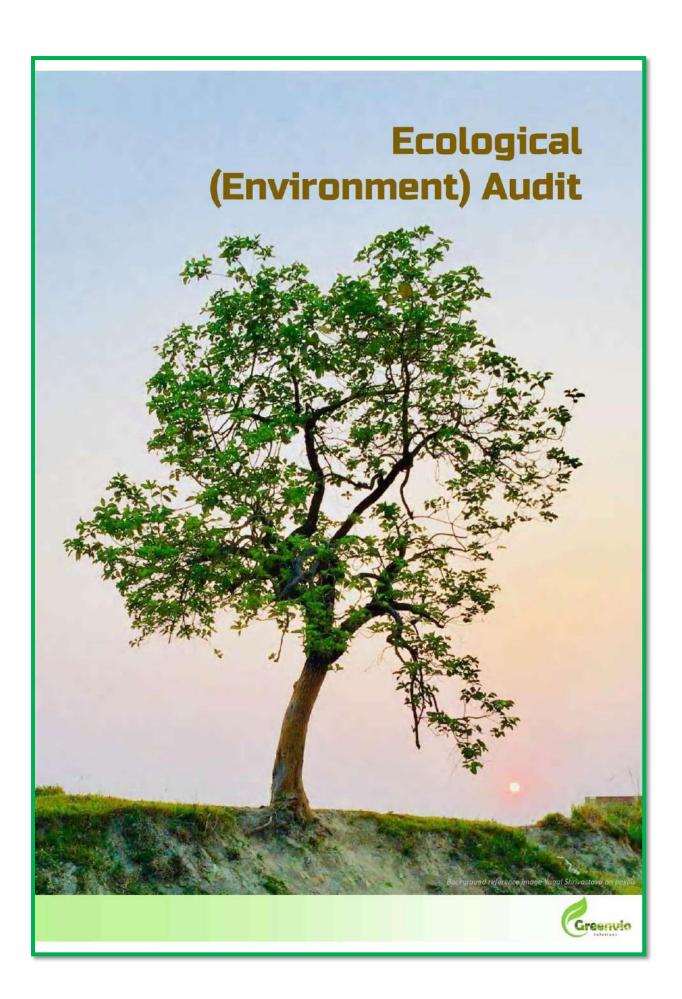


The huge trees near the entrance and parking area



The main entrance of the Institution





## 5. Ecological (Environmental) Audit

Environment is an essential part for human survival. We co-exist with the environment and it cannot be termed as a separate entity. The Ecological audit helps to understand the flora, fauna that exists and steps that can be taken to improve the same. To denote if there are problems related to sound in and around the surrounding. In terms of the carbon footprint it helps in keeping a tab on the eco-friendly habits incorporated by the inhabitants of the premise. Health today is the topmost priority, a general understanding of the initiatives undertaken along with sufficient hygiene practices adopted. Universal design is applicable to all built and unbuilt spaces. The premise needs to have facilities for students who are specially abled alike.

As part of our study we could state that the Institution has developed eco-friendly practices and sustainable solutions which are well reflected in the rich biodiversity of the Premises. Being situated near the city the appreciation space towards the main entrance provides a welcoming approach to the College.

The college has huge open space used by all. The students use it for as a leisure place for study and college ground is used for sports activities. There are ample resting spaces as part of building design which provide a resting and warm welcoming approach in the premise.

#### 5.1 Open Spaces

There is a beautiful balance of natural and open spaces in the premise and the open/vegetation spaces are balanced overall. The ground is used by students at present for sports. There are provisions for Volleyball, Kabaddi ground, kho-kho ground, football ground and badminton area in addition to the ground there are natural plantations which have enhanced the beauty of the space.

There are a few Maintenance staff allotted for the open spaces and they have done an excellence job in terms of the duty allotted. The infrastructure committee too is involved in this process. There is drip irrigation methodology adopted for watering and the college has taken special provisions for the same. The spaces are watered daily in summer. The efforts to maintain the existing space are commendable.

#### 5.2 Flora Audit

#### 5.2.1 Flora analysis

A flora survey was carried out to identify the total numbers of plants and trees every years. The various varieties found are Neem, Mango, Flowering Plants, Tamarind, Custard Apple, Guava, Jamun, Vad, Peepal, Teak Wood Silver Cock and much more.

The landscape area has a variety of plantations constituting **a total of 18,500 plus till date.** In the last 5 years tree plantation done is as described below. In the table no. of trees planted

S. No	Year	r Numbers of Plants & Tree		
1	2016-2017	2100		
2	2017-2018	2128		
3	2018-2019	2284		
4	2019-2020	1800		
5	2020-2021	733		

Table 13: Survey of Trees and Plants from 2016-2021

#### 5.2.2 Fauna analysis

The premise includes birds and butterflies in quite a few good numbers.

#### 5.3 Noise Audit

#### 5.3.1 Macro level

On a macro level there are open grounds close to the site. The approach road too has very minimal traffic. As the college is oriented amidst the residential areas with immense vegetation the noise levels do not affect the students and staff in their day to day functioning. The approach road too is pretty away almost 500ft. **Overall the noise level in terms of bad effect is low and there are positive outcomes as per our analysis on macro level.** 

#### 5.3.2 Micro level

The college has a adequate open space covered with huge trees prevailing naturally in the premise. There are bare minimum parking provisions provided in the premise which causes bare minimum noise as they are situated near the entrance which is a bit away. The college has generators which is used whenever required but it is located appropriately and there is no inconvenience or sound problem caused due to the same. There are no particular equipments which cause any noise effect. There is an Auditorium in the premise but it has outstanding acoustic treatment which results is better noise balance. **Overall the noise levels inside the premises are low which is a good approach.** 

#### 5.4 Carbon Footprint Audit

#### 5.4.1 Eco-friendly Commuting Practices

Based on data collection and discussion with staff the following points were noted:

- Ease of commuting Owing to close proximity to public transport the access is very feasible and walk able.
- Parent's commute There is 1 Parent-teacher meeting held in a year and the turn-out is around 5-10%
- Vehicles details The provision provided by College includes 150 bikes parking and 30 4-wheelers parking inside the premise for staff whereas the college has ample space of more than 500 bikes and 40 cars for students separately.
- Visitors vehicles Approximately 40 visitors with vehicles visit the campus daily, but visitors vehicles are parked inside the premise but in a separate area of parking.
- Commute details The students commute from quite a lot of places, the details of the same are summarised below.

S. No.	Names Of The Nearby Places	Dist. Form College
1.	Satara Parisar	2 km
2.	Deolai Chowk	4 km
3.	Dargah	6 km

4.	Beedby Pass	3 km
5.	Osmanpura	6 km
6.	Krantichowk	7 km
7.	Khadi Road	8 km
8.	Chikhalthana	15 km
9.	Hudco	16 km
10.	Cidco	12 km
11.	Shivaji Nagar	7 km
12.	Ulka Nagari	6 km
13.	Baba Petrol Pump	8 km
14.	Waluj	18 km
15.	Pundlik nagar	9 km
16.	Jaybhavani Nagar	9.5 km
17.	Dhule Sholapur National Highway	1 km

Table 14: Vehicles usage by stakeholder of campus

#### 5.4.2 Heat Island Reduction

The Institution has **adopted the following practices which are yielding positive results** in terms of Urban Heat Island Effect which refers to increase in temperature of the surrounding because of ineffective strategies.

- Exposed roof areas The terrace is flat roof, it is absolutely clean and well
  maintained. Though it is quite old (Constructed in 2008) the Buildings are
  covered with white paint. The current practices are well maintained.
- Exposed non-roof hardscape areas There is a pathway on all sides of the
  premises. These include some natural and potted plantations. However, the
  trees are wide and the canopy is wide spread providing ample shade to this
  space hence there is no direct sunrays or similar effect.

There are adequate measures adopted in the premises to reduce heat island effect of Building roofs and in site.

#### 5.4.3 Outdoor Light Pollution Study

The college compound lights are not upward looking there not causing light pollution.

#### 5.5 Universal Campus

As per World Report on Disability, 2011 there are 180 million approx. Persons with Disabilities that makes it 15% of total population of India.

There are Handrails along staircase, low height risers in the Staircases as part of universal campus initiatives. The design of the premises is appropriate for access with passages and corridors being wide enough in size and naturally ventilated. The doubly and singly loaded corridors are safe from fire safety. There is a provision of ramp in premise. The college has resting places (seating areas) in the outdoor along the trees thereby making it user friendly for the specially abled students.

#### 5.6 Fire Safety

When the building was constructed Fire fighting norms i.e. fire hydrants, fire pumping station and fire audit has been done approved and certified by Chief Fire Officer, Aurangabad. Each floor has an open staircase which has fire hydrant point without any barriers for fire safety measures. The current facilities are quite well maintained. There are 20 Fire extinguishers in the premise and these are present on each floor.

S. No.	Date of installation	Capacity	Date of refilling
1.	24/09/2020	6kg	23/09/2021
2.	24/09/2020	6kg	23/09/2021
3.	24/09/2020	6kg	23/09/2021
4.	24/09/2020	6kg	23/09/2021
5.	24/09/2020	2kg	23/09/2021
6.	24/09/2020	2kg	23/09/2021
7.	24/09/2020	6kg	23/09/2021
8.	24/09/2020	2kg	23/09/2021

9.	24/09/2020	6kg	23/09/2021	
10.	24/09/2020	2kg	23/09/2021	

Table 15: Fire extinguishers details in the premise

The above analysis shows that all the Fire Extinguishers are active and as per information shared by the College the bill amount is Rs. 18000/-

#### 5.7 Survey Results

An online survey was conducted to analyse the student and staff views about the premise, following are some of the reviews.

#### 5.7.1 Participation

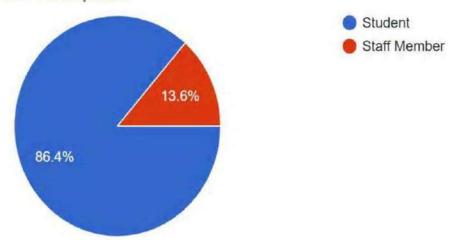


Figure 1: Participation analysis in the survey

A total of 206 responses were received out of which 86% were students.

## 5.7.2 What according to you are the positive steps taken by the Institute towards Green Building/ Good maintenance?

We have listed some of the key responses below.

- Construction of Rain water Harvesting Structure
- · Every step is positive
- · Collage work is good for green building
- Green city building college
- Planting trees

- Energy conservation, use of renewable source, rain water harvesting.
- Various programs conducted by college for us
- Institute make tree plantation with student in institute area.
- Tree plantation
- · Less use of water, Tree plantation.
- The nature of place very good for students it should not be polluted ,and taking care of trees for awareness of pollution from atmosphere.
- · Providing good environment in institute
- So many
- Campus is very well maintained. Cleanliness & greenery is also very well maintained.
- · All campus well maintain and clean daily.
- Complete green environment provided in Campus, Pollution free environment provided.
- · Good maintenance
- Tree Plantations
- Good
- Efficient use of energy, water and other resources. Use of renewable energy, such as solar energy. Pollution and waste reduction measures, and the enabling of re-use and recycling. Good indoor environmental air quality.
- Good maintenance
- Rainwater harvesting, solid waste management, solar energy, plantation in the campus, conservation
- The institute is particular about tree plantation, water conservation, maintaining greenery in campus etc.
- Efficient use of energy, water and other resources. Use of renewable energy, such as solar energy. Pollution and waste reduction measures, and the enabling of re-use and recycling.
- Rain Water Harvesting
- SYCET gives priority to greenery and study
- Thimble irrigation to all the tree
- Tree plantation in campus area
- · Plantation of trees, water conservation & led bulbs in majority of building
- · Water harvesting, tree plantation, proper disposal of waste

- To make more plant in building
- · Webinars, awareness programs etc
- Using fewer, more durable materials and generating less waste, as well as
  accounting for a building end of life stage by designing for demolition waste
  recovery and reuse.
- · Engaging building users in reuse and recycling.
- Make aware all concerned people and outsiders through events like webinars, poster competitions, tree plantation programs
- · Tree Plantation, solar plant installed
- Making the awareness about the green building is the best example in front of students.
- Save water
- To maintain the day to day green building & Good maintenance of the future life.
- · Tree plantation
- In surrounding of collage building are much more trees are planted for natural air, or good Maintenance of go green Institute.
- Well done
- Awareness programs such as webinar, workshops, hands-on training are conducted. Slogans, banners, and posters are pasted on walls and e-posters are shared through social media platforms.
- Rain water harvesting and many more
- Good waste management
- All are a positive step
- · Minimising waste and maximising reuse
- Our college conduct environment awareness program
- · Switch off while energy source while not in use
- Took care of plants
- Green building preserve precious natural resources and improve our quality of life
- Excellent
- Good maintenance
- · Arrange different programs and conduct them properly
- Not harming nature.

- Green building preserve precious natural resources and improve our quality of life
- Our college always try to plant the near about 2000 plant every year and they
  encourage us for planting the plant by giving us plant free of cost and also If
  any program is conducted in college then we felicited the guest by giving
  plant.
- Proper waste management
- They are taking seminar that taught us about green buildings also encourage student to take part in it also staff members are active about that contribute with everything.
- · Garbage disposal system is good.
- · Avoiding plastic use
- · Green environment and water storage system is better managed
- · Taken good effort for cleaning college
- · Every year institute plant the tree in campus
- · Arranged the tree plantation program every year.
- · College has many plants in the campus. Water management is also good.
- · Green awareness.

## 5.8 Recommendations for a Sustainable Habitat by Greenvio Solutions for Environment Audit

#### Site beautification

#### a) Low VOC Paints and Adhesives

Whenever the College undergoes repairs or renovations there should be use of materials with low emissions so as to reduce the adverse health impacts on workmen and the students occupying the space thereafter.

#### Heat island reduction

#### a) Grass pavers in the setback areas

The college can have grass pavers for in replacement to existing paving for further heat island reduction on exposed non-roof areas

#### Universal Campus

### a) Universal Toilet

There should be minimum 1 toilet for the specially abled people as per guidelines prescribed by National Building Code 2016 with size being minimum or more than  $1.5 \text{m} \times 1.5 \text{m}$ 

#### b) Resting places

There should be increased provision for resting places in premises in outdoor and indoor.

## **Pollution Control**

## a) Promote the use of Eco-friendly vehicles

There can be provision for battery operated vehicles/ low emission vehicles such as electrically driven vehicles parking in open space along with battery charge points, this would inspire students to change mode of transportation and adopt sustainable practices.

#### b) Bicycles as a gift

As an appreciation gesture may be the students toppers/ staff best performers can be awarded with a bicycle occasionally.

## Aspects of the Site for user benefit



Provision of sanitary napkin disposal machine



Parking facility in the premise



Ramps in the premise





Signages in the premise



## Noise and open spaces (Heat island) study

- The college is surrounded by huge open spaces with vegetation on all sides.
- There are huge varieties of trees and shrubs totaling to thousands of planted along the periphery of the premise.
- The huge landscape enhances the biodiversity, reduces noise pollution, mains micro climate and helps in urban heat island reduction.



The main entrance block





Pathway leading to the College



Similar types of trees



Huge open spaces around pond



Plantation cover



Trees near the parking



CAMPUS

THE



## **Beautiful varieties of the flora in the premise**



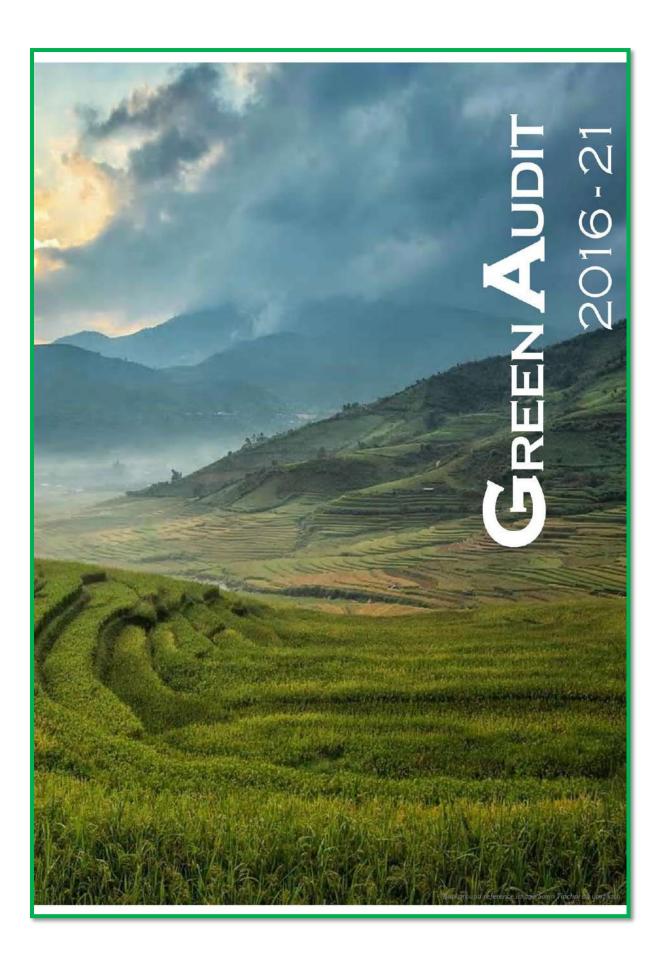


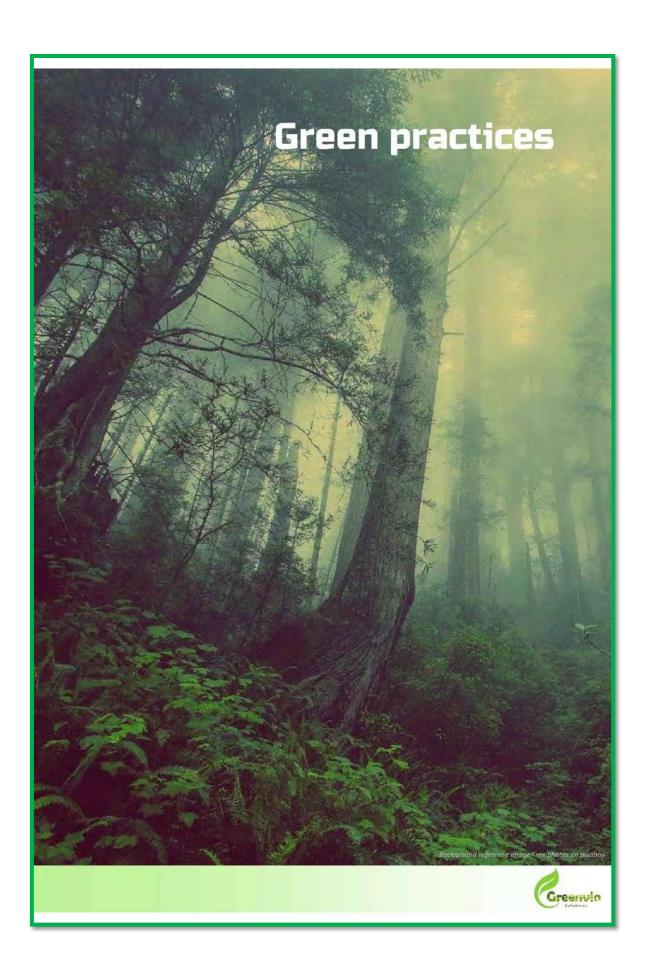












## 6. Green Practices Audit

The increasing global warming and climate change have made us realise that apart from the enormous strategies the individual small efforts need to be taken by individuals and Educational Institutes as the younger generations are the future of the world and once they are taught about these practices only then can we assume a better future.

## 6.1 Green practices

We observed the following points during the Site investigation:

- There is availability of open space in the premise in addition to the provision of the multiple varieties of flora.
- No vehicle day scheme is practiced on Environment day.
- The college has a Tradition to plant trees. Under NSS Scheme during seminars there is practice of giving plants as token.
- There is organic composting process carried out for decomposition of organic matter of plants and it is used as an organic fertilizer and increase ecology.
- The ample vegetation provides shade thereby benefiting the users.
- The College has compost pits available in campus which are used to make manure and organic slurry which are used for the plantation.
   The quantity generated is sufficient and the use of chemical fertilizers is avoided.
- There are total of 16 Maintenance staff who manage the entire premise.
- Some plants and trees have a signage for awareness of the plantation knowledge; the college has taken special efforts for the same.
- The NSS Team and Admin staffs have joined hands towards the upgrading of the premises from environmental view.
- The college has multiple courtyards inside the premise which are very beneficial.

## 6.2 Community Development

The various community development programmes conducted include Tree Plantation, Life Learning, Employability Skill programme introduced for the youth, Blood Donation Camp, Food Kit Distribution Programme to the neighbourhood community, Relief fund programmes, Health awareness medical camp flood, drought relief fund and awareness regarding traffic sense by the students.

## 6.3 Eco-friendly initiatives undertaken

The Institution has undertaken the following initiatives through **excellent efforts** towards save environment measures before pandemic. The NSS Department holds the nature club and various activities like tree plantation, nature cleanliness, visits to nearby flora and fauna are carried out.

- Celebration of World Environment Day, 2018
- Tree plantation for a total of 2128 nos.
- · Dense forest plantation programme
- Seminar on environmental protection, 2018
- Celebration of World Environment Day, 2019
- . Celebration of World Water Day by poster presentation, 2019
- Tree plantation for a total of 2284 nos. along with dense forest plantation
- Celebration of World Environment Day by practicing No-vehicle day, November 2020
- Tree plantation on the occasion of Environment Day- 1800nos.
- Poster presentation on World Water Day, 22 March 2021
- Webinar on Benchmarking of irrigation projects in Maharashtra state, 12 April 2021
- Webinar on the topic Sagarmitra peoples participation in plastic waste management on World Earth Day, 22 April 2021
- Webinar on the topic Environment v/s development on World Environment Day, 5 June 2021
- Tree plantation on the occasion of World Environment Day for a total of 733 nos. of trees.

## 6.4 Survey Results

An online survey was conducted to analyse the student and staff views about the premise, following are some of the reviews.

## 6.4.1 Participation

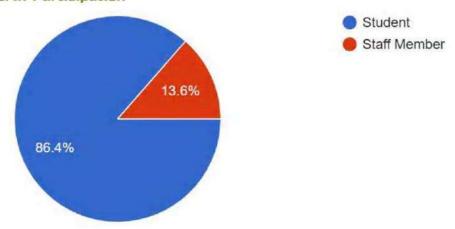


Figure 2: Participation analysis in the survey

A total of 206 responses were received out of which 86% were students.

## 6.4.2 Rate the Green awareness practices in College

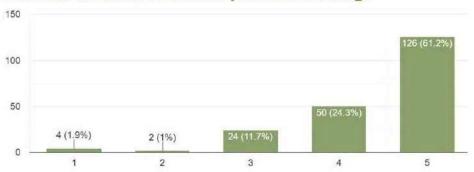


Figure 3: Green awareness practices in College

There were mixed responses received the highest was for rating 5 (Excellent) at 61% followed by 24% for rating 4 (Very good).

# 6.4.3 Does your College conduct environment awareness programs/ webinars/ plantations/ cleanliness or similar programs?



Figure 4: Green awareness practices in College

The students, staff (almost 95%) of responses confirmed activities are conducted which is very excellent.

## 6.4.4 Do you participate is such events?

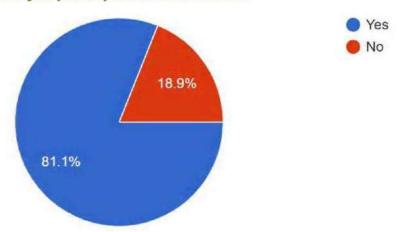


Figure 5: Green awareness practices in College

The students, staff (almost 81%) of the responses confirmed their participation, this number should be increased in our opinion.

## 6.4.5 If yes, what has been your experience about the program?

We have listed some of the key responses below.

- Eco friendly
- · Pani foundation
- · It was really great experience, such program makes us more alter.
- Great
- Nice
- · It is very good programme.
- Good
- · Its helpful for good society, good environment.
- It was amazing....
- · Quit refreshing feel like did something for nature
- Programmes are very effective and useful.
- · It is nice experience to plantation of tress keeping cleanness in college
- It's a very good and green saving project.
- Knowledgeable
- · Good experience
- Very nice
- · On environmental day celebration has done with plantation
- From college chairman sir i had motivated to plant one tree on my birthday.
   Not only plant tree, take care of it.
- Give awareness among the staff and students regarding importance of green nature
- · Experienced best and got all knowledge.
- · Knowledge & awareness about global warming
- · I have got aware of tree plantation
- Very good

- · Very informative
- · Very useful program.
- · Good and creates awareness among people about environment
- Yes I would like to participate to this program.it was very grateful arranging
  this program and i have planting the 6 to 10 trees in this program. And some
  tell information about environment and nature or about trees.
- Enlightening!
- · Very nice
- Awareness about effective utilization of water and electricity in the College campus. The waste management practice is adopted. Tree plantation and caring is carried out. Awareness about e-waste management is created among us.
- · It was very good experience
- It's very helpful for awareness of Environment saving activities.
- My experience was very nice
- Nice experience
- This program use for environment balance control many more
- · Its a nice experience to me. Great program and activities.
- Environment awareness program help to protect ecology from environment pollution though reuse, reduce, recycle
- · This is important program to balance the environment.
- · So nice to be the part of the program.
- · I plants trees and grow it in my farm.
- It was excellent
- My experience about the program is very good and I share information to other for awareness
- Very good
- · That experience is new for me but it was great

- Awesome
- It was well organized and the information was delivered about green plantation was good
- In this program i am study new knowledge.
- If it's about environment and cleanliness then my college will be no. 1 no doubt
  in that nature is first beauty of our college. And yes we do plantation programs
  and it's always a beautiful feeling to be with nature.
- Excellent

## 6.7 Recommendations for a Sustainable Habitat by Greenvio Solutions for Green Practices

We have found that the current practices are very excellent and thus there are only minimal recommendation with respect to this section.

## a) Environmental awareness

There can be various artworks on compound wall giving message of saving environment through the joint efforts of the students and staff thereby making the student socially and environmentally responsible citizen.

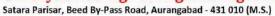
### b) Tree adoption scheme

The college can adopt One Faculty – One tree adoption scheme which is one of its kind practice, this can be very beneficial especially during the summer season.

## ENVIRONMENT REPORT

SR.NO.	ENVIRONMENTAL ACTIVITIES	STATUS	
1.	WORLD WATER DAY	✓	
2.	WORLD EARTH DAY	✓	
3.	WORLD ENVIRONMENT DAY	✓	
4.	SWACHH BHARAT ABHIYAN	✓	
5.	NSS ACTIVITIES	<b>✓</b>	

## Shreeyash College of Engineering & Technology



T: +91 240 6608784 / 702, F: +91 240 6608709, E: principal@sycet.org, Web: www.sycet.org & www.syp.ac.in

Name of the event: World Water day

Date of the event: 22<sup>nd</sup> March,2021

Class: WHOLE COLLEGE

Accompanying Staff: Dr. Masarrat Sultana , Prof.V.H. Nimbhore, Prof.R.H. Nimbhore

Summary of the event: Poster preparation

Outcome:

To create awareness regarding World water day
 To study the conservation and protection of water



## Shreeyash College of Engineering & Technology



T: +91 240 6608784 / 702, F: +91 240 6608709, E: principal@sycet.org, Web: www.sycet.org & www.syp.ac.in

Benchmarking of irrigation projects in Maharashtra state 12<sup>th</sup> April,2021 SE, TE and BE Civil Date of the event: Class:

Accompanying Staff: Dr. Masarrat Sultana, Prof.M.S.Hudekar, Prof.R.H. Nimbhore

Summary of the event: Webinar

Outcome:

Name of the event:

- To inculcate knowledge regarding utilization of this tool in water resources systems
- · To study the benchmarking technique for irrigation projects



## Shreeyash College of Engineering & Technology

Satara Parisar, Beed By-Pass Road, Aurangabad - 431 010 (M.S.)

T: +91 240 6608784 / 702, F: +91 240 6608709, E: principal@sycet.org, Web: www.sycet.org & www.syp.ac.in

Name of the event: Sagarmitra: Peoples participation in plastic waste management

Date of the event: 22nd April,2021
Class: WHOLE COLLEGE

Accompanying Staff: Dr. Masarrat Sultana , Prof.G.H.Dake, Prof.Rubina Shah

Summary of the event: Webinar

Outcome:

· To create awareness regarding World Earth day

· To study the process of recycling plastic waste





## Shreeyash College of Engineering & Technology

6



Satara Parisar, Beed By-Pass Road, Aurangabad - 431 010 (M.S.)

T: +91 240 6608784 / 702, F: +91 240 6608709, E: principal@sycet.org, Web: www.sycet.org & www.syp.ac.in

Name of the event: Environment vs Development

Date of the event: 5<sup>th</sup> June,2021

Class: WHOLE COLLEGE

Accompanying Staff: Dr. Masarrat Sultana, Prof. A.D. Lahane, Prof.P.N.Marawar,

Prof.K.K.Pathak

Summary of the event: Webinar

Outcome:

- To create awareness regarding World Environment day
- · To study the impact of development on environment



## Shreeyash College of Engineering & Technology



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T: +91 240 6608784 / 702, F: +91 240 6608709, E: principal@sycet.org, Web: www.sycet.org & www.sycet.org

Name of the event: Tree plantation
Date of the event: 5<sup>th</sup> June,2021
Faculties: All faculties
Accompanying Staff: Prof. Datta Khade

Summary of the event: Tree plantation by Director, Principal and all faculties

Outcome:

To create awareness regarding World Environment day

To the desired form of the property of the property

To study the conservation and protection of the environment





Shreeyash College of Engineering and Technology Aurangabad

"NOT ME BUT YOU"



## NATIONAL SERVICE SCHEME [NSS]

Camp Conducted at TAKALI [Mali]

Taluka Aurangabad

From 08/02/2016 to 13/02/2016

Organized by

NSS UNIT

Academic Year 2015-2016

A Report On





National services scheme

Venue: - Takali (Mali) Taluka Aurangabad.



"Personality development of students through Community Service."

## NSS CAMP REPORT SUBMITTED TO ...

NSS Unit of Shreeyash College of Engineering and Technology Aurangabad have conducted a NSS camp at TAKALI (Mali) Village, Taluka Aurangabad from 08-02-2016 to 13-02-2016.

The Day-to-Day activities carried out in detail during the NSS camp are presented in this report.

The photos of daily work Activity, survey & written Feedback are also included. The support extended by the Shreeyash Pratishthan's Administration and Management are highly remarkable.

The timely guidance and cooperation extended by Dr. R. S. Pawar (Principal SYCET Aurangabad) & Dr. U. B. Kalwane (Director SYCET Aurangabad) gave a wide scope to conduct the activities successfully.

(PRINCIPAL)

Prof. V. A. Solanke

(PROGRAMME OFFICER)

of medical !

Prof. Amol S Adkine (PROGRAMME OFFICER)

Assistant Programme Officer-1

Prof R S Pillai

Shreeyash College of Engineering and Technology, Aurangabad NSS CAMP REPORT 2016 National Service Scheme

NSS CAMP Details	
Dates	08-02-2016 TO 13-02-2016
Village	At TAKALI (Mali) Village, Taluka Aurangabad
Distance From The College	27 KM
No. of Student Volunteers	63 ( 54-Boyes & 08 Girls)
No. of Local Youth	01
Programme Officer	Prof. V.A.Solunke
Assistant Programme Officer-1	Prof. Amol S Adkine
Assistant Programme Officer-2	Prof R S Pillai

NSS Camp Program Scheduled :-

DAY	DATE	Session	Activity
1.	08/02/2016	Morning	Inaugural function of the NSS camp (By DR. R. S. Pawar Principal SYCET A'bad & Retd. Col. C.D. Dharmadhikari Campus director SYCET A'bad).
		Afternoon	Interaction with villagers.
		Evening	Awareness of rural health care with special focus on CANCER Awakening by Mr.Z. A. Kharade
2.	09/02/2016	Morning	Beginning of the day with Yoga! Conducted by Dr. U. B. Kalwane ( Director SYCET Aurangabad)
		Afternoon	Voluntary Work:- Maintenance of village streets, drains, etc. so as to keep the environment clean.
		Evening	Vaudeville or drama or act on the topic "farmer suicide & alcoholic beverage"
	10/02/2016	Morning	Starts with Yoga class Guided by NSS volunteers
		Afternoon	Voluntary Work:- bund & embankment claiming
3.		Evening	Program conducted by Prof. Anil Magar on of sanitary latrines & literacy ( Specially for ladies), Fetal Death or female Foeticide, etc
4.	11/02/2016	Morning	Starts with Yoga class Guided by NSS volunteers
		Afternoon	Voluntary Work:-

		Evening	Act presented by NSS volunteers on dowry, अधःश्रदा निर्मुलन (Blind : reverence elimination), ह्यसनमुक्ती (Cessation) Etc
5.	12/02/2016	Morning	Starts with Yoga class Guided by NSS volunteers
		Afternoon	Voluntary Work in that village & gives computer knowledge, competitive examination Knowledge to school boys through b NSS Volunteers
		Evening	Speech By Divisional Agricultural officer Mr.R. L. Rathod Discussed important topic like Organic fertilizer, types of fertilizers, Save Water & tree plantation.  Dr.R. S. Pawar discussed important of Education, basic need of higher education gives information for different courses, etc
6.	13/02/2016	Morning	Starts with Yoga class Guided by NSS volunteers
		Afternoon	Valedictory function :- Invited guest prof. Bange (Divisional NSS Officer Aurangabad) Mr. A. S. Thale (Sarchanch) & Mr Pungatkar sir (Head Master of G.P. School Takali Mali)

### About NSS:

#### Introduction

National Service Scheme (NSS) is a Youth Programme under the Ministry of Youth Affairs and Sports, Government of India and funded by Government of India

## Objectives:

The Main Objectives of National Service Scheme (NSS) are:The Volunteers

- Understand the community in which they work.
- Understand themselves in relation to their community.
- Identify the needs and problems of the community and involve them in problem solving.
- Develop in themselves a sense of social and civic responsibility.
- Develop the competence required for group –living and sharing responsibilities.

## Inauguration of NSS Camp

By DR. R. S. Pawar (Principal SYCET A'bad ) & Retd. Col. C.D. Dharmadhikari (Campus director SYCET A'bad).



Interaction with villagers...



Shreeyash College of Engineering and Technology, Aurangabad NSS CAMP REPORT 2016

Shreeyash College of Engineering and Technology, Aurangabad, organized camp at Takali (Mali) from 08/02/2016 to 14/02/2016. The different programs conducted by the NSS Volunteers are as follows.

[08/02/2016]

DAY 1:- Departure from college



Shreeyash College of Engineering and Technology, Aurangabad NSS CAMP REPORT 2016

Wyasan Mukti (Awareness about hazards of Tobacco addiction) program conducted by Mr. Z. A. Kharade





Shreeyash College of Engineering and Technology, Aurangabad NSS CAMP REPORT 2016

## [09/02/2016]

DAY 2:- Beginning of the day with Yoga...!

Yoga Prashisan by DR.U. B. Kalwane (Director SYCET Aurangabad) DAY 2

-Beginning of the day with Yoga...! Conducted by Dr. U. B. Kalwane (Director SYCET Aurangabad)





Shreeyash College of Engineering and Technology, Aurangabad

NSS CAMP REPORT 2016

-  $\operatorname{Voluntary}$   $\operatorname{Work:}$  -  $\operatorname{Maintenance}$  of village streets, drains, etc. so as to keep the environment clean.







Shreeyash College of Engineering and Technology, Aurangabad NSS CAMP REPORT 2016





Shreeyash College of Engineering and Technology, Aurangabad

NSS CAMP REPORT 2016

## - Drama or act on the topic "farmer suicide & alcoholic beverage"





Audience ...!



Date:- 10/02/2016
Day 3
- Starts with Yoga class Guided by NSS volunteers



- Voluntary Work: - Bund & Embankment Cleaning & Repairing by NSS Unit











Shreeyash College of Engineering & technology Aurangabad, NSS Unit 2016





Program conducted by Prof. Anil Magar on of sanitary latrines & literacy, Fetal! Death or female Feticide..



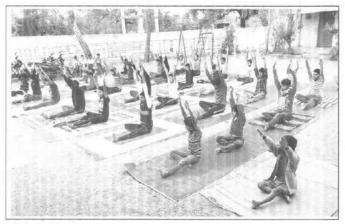
Program arranged by

Shreeyash College of Engineering & technology Aurangabad

NSS Unit 2016

Date:- 11/02/2016

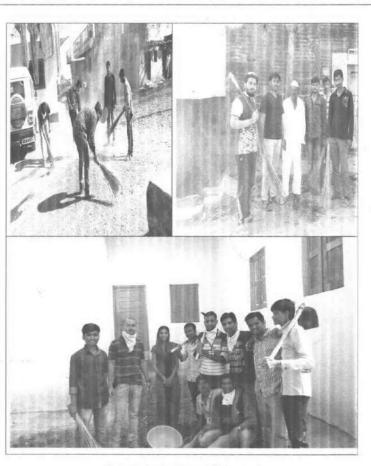
DAY 4
- Starts with Yoga class Guided by NSS volunteers



Voluntary Work:-(Gram Swachata Gram Vikas Abhiyaan...!)

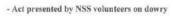


Shreeyash College of Engineering & technology Aurangabad NSS Unit 2016



(Gram swachata gram vikas Abhiyaan...!)

Shreeyash College of Engineering & technology Aurangabad NSS Unit 2016





LOK JAGARAN Program under NSS Activity....!

Andhsradha Nirmulan अंघःश्रद्धा निर्मूलन (Blind : reverence elimination) , Shetkari Atmahatya & Daru Bandi), व्यसनमुक्ती (Cessation) Act & Drama presented by NSS volunteers on dowry,

Shreeyash College of Engineering & technology Aurangabad

NSS Unit 2016

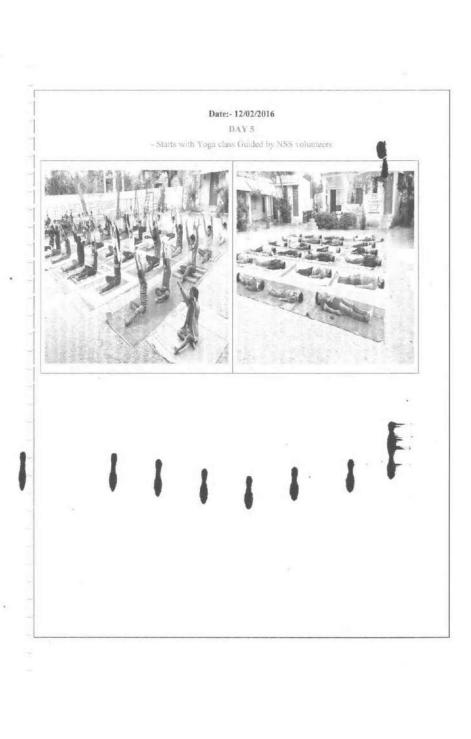




Andhsradha Nirmulan , Shetkari Atmahatya & Daru Bandi Act & Drama presented by NSS volunteers..!

Shreeyash College of Engineering & technology Aurangabad

NSS Unit 2016





untary Work in that village & gives computer knowledge, competitive examination Knowledge to school boys through by NSS Volunteers.

Water Saving ( Jal Savardhan ) program Under NSS Activity Done by Shreeyash College of Engineering & technology Aurangabad, NSS Unit 2016



Pani Adva Pani Jirva ...!





 Invited Guest Divisional Agricultural officer Mr.R. L. Rathod Discussed important topic like Organic fertilizer, types of fertilizers, Save Water & tree plantation. Dr.R. S. Pawar discussed important of Education, basic need of higher education, gives information for different courses, etc..





Shendriya Khat (Organic Fertilizer & its types)

Shreeyash College of Engineering & technology Aurangabad NSS Unit 2016

DAY 6 (13/02/2016)
-Valedictory function: - Invited guest Prof. Bange (Divisional NSS Officer Aurangabad) Mr. A.S. Thale ( Sarchanch) & Mr. Pungatkar sir (Head Master of G.P. School Takali Mali



-Valedictory function: - Invited guest Prof. Bange (Divisional NSS Officer Aurangabad) Mr. A. S. Thale ( Sarchanch) & Mr. Pungatkar sir (Head Master of G.P. School Takali Mali



NSS Unit 2016



Shreeyash College of Engineering & technology Aurangabad NSS Unit 2016



Dr. R.S. Pawar Principal SYCET A'bad & Retd. Col. C.D. Dharmadhikari (Campus director SYCET A'bad), Take Feedback From Villagers for NSS Camp 2016....
End of NSS Camp 2016.

#### NSS Programmed conducted activity as per day...!

#### DAY 1:- Departure from college

Activity

- -Inauguration function of the NSS camp (By DR. R. S. Pawar Principal SYCET A'bad & Retd, Col. C.D. Dharmadhikari (Campus director SYCET A'bad).
  - -Interaction with villagers.
- -Awareness of rural health care with special focus on CANCER Awakening by Mr.Z. A. Kharade.

#### DAY 2

- -Beginning of the day with Yoga...! Conducted by Dr. U. B. Kalwane (Director SYCET Aurangabad)
- Voluntary Work: Maintenance of village streets, drains, etc. so as to keep the environment clean.
- Vaudeville or drama or act on the topic "farmer suicide & alcoholic beverage"

#### DAV

- Starts with Yoga class Guided by NSS volunteers
- Voluntary Work: bund & embankment claiming
- Program conducted by Prof. Anil Magar on of sanitary latrines & literacy (Specially for ladies), Fetal Death or female Feticide, etc..

#### DAY 4

- Starts with Yoga class Guided by NSS volunteers
- - Voluntary Work:- Act presented by NSS volunteers on dowry, अंधःश्रद्धा निर्मूलन (Blind reverence elimination), व्यसनमुक्ती (Cessation) etc

#### DAY 5

- Starts with Yoga class Guided by NSS volunteers
- Voluntary Work in that village & gives computer knowledge, competitive examination Knowledge to school boys through by NSS Volunteers.
- Speech By Divisional Agricultural officer Mr.R. L. Rathod Discussed important topic like Organic fertilizer, types of fertilizers, Save Water & tree plantation. Dr.R. S. Pawar discussed important of Education, basic need of higher education, gives information for different courses,

#### DAY 6

- -Starts with Yoga class Guided by NSS volunteers
- -Valedictory function: Invited guest Prof. Bange (Divisional NSS Officer Aurangabad) Mr. A. S. Thale (Sarchanch) & Mr. Pungatkar sir (Head Master of G.P. School Takali Mali).



#### Shreeyash Pratishthan's

Shreeyash College of Engineering & technology Aurangabad

NSS Unit 2016



"NOT ME BUT YOU"

NATIONAL SERVICE SCHEME [NSS]

Camp Conducted at TAKALI [Mali]
Taluka Aurangabad.

From 08/02/2016 to 13/02/2016



#### Shreeyash Pratishthan's

# Shreeyash College of Engineering and Technology Aurangabad

"NOT ME BUT YOU"



## NATIONAL SERVICE SCHEME [NSS]

Camp Conducted at TAKALI [Vaidya]

Taluka Aurangabad

From 27/02/2017 to 05/03/2017

Organized by

NSS UNIT

Academic Year 2016-2017

A
Report
On
NSS CAMP



National services scheme

Venue: - Takali (Vaidya) Taluka Aurangabad.

"Personality development of students through Community Service."

#### NSS CAMP REPORT SUBMITTED TO ...

NSS Unit of Shreeyash College of Engineering and Technology Aurangabad have conducted a NSS camp at TAKALI (Vaidya) Village, Taluka Aurangabad from

#### 27-02-2017 to 05-03-2017.

The Day-to-Day activities carried out in detail during the NSS camp are presented in this report.

The photos of daily work Activity, survey & written Feedback are also included. The support extended by the Shreeyash Pratishthan's Administration and Management are highly remarkable.

The timely guidance and cooperation extended by Dr. R. S. Pawar (Principal SYCET Aurangabad) & Dr. U. B. Kalwane (Director SYCET Aurangabad) gave a wide scope to conduct the activities successfully.

Prof. V. A. Solanke

Dr. R. S. Pawar

(PROGRAMME OFFICER)

(PRINCIPAL)

Assistant Programme Officers:

- 1) Prof. Y. T. Gavhane
- 2) Prof.V. B. Chavan
- 3) Prof. R.R.Patil
- 4) Prof. K. A. Atkare

Shreeyash College of Engineering and Technology, Aurangabad NSS CAMP REPORT 2016-17

## About NSS:

#### Introduction

National Service Scheme (NSS) is a youth Programmer under the Ministry of Youth Affairs & Sport, Government of India & funded by Government of India.

## Objectives:

The main Objectives of National Service Scheme (NSS) are:The Volunteers

- 1. Understand the community in which they work.
- 2. Understand themselves in relation to their community.
- 3. Identify the needs & problems of the community & involve them in problem solving.
- 4. Develop in themselves a sense of social & civic responsibility.

Develop the competence required for group-living & sharing responsibilities

## NSS Camp special camp activity -

DAY	DATE	SESSION	ACTIVITY
1.	27 <sup>TH</sup> FEB 2017	MORNING	Inaugural function of the NSS camp (By DR. R. S. Pawar Principal SYCET A' bad and Sarpanch Mr. Raghunath Maske).
	1000000	AFTERNOON	Interaction with villagers.
		EVENING	Awareness on cleanliness by the volunteers.
2.	28 <sup>th</sup> FEB	MORNING	Beginning of the day with Yoga! Conducted by Dr. U. B. Kalwane (Director SYCET Aurangabad)
۷.	2017	AFTERNOON	Voluntary Work: - Maintenance of village streets, drains, etc. so as to keep the environment clean.  A team of volunteers went to Z.P. school to teach

			about computer awareness.
		EVENING	Vaudeville or drama or act on the topic "farmers suicide & alcoholic addiction" by NNS Volunteer.
		MORNING	Starts the day with Yoga! Conducted by Dr. U. B. Kalwane (Director SYCET Aurangabad)
3.	1 <sup>st</sup> MAR 2017	AFTERNOON	Voluntary Work:- Bund & Embankment claiming ,A team of volunteers went to Z.P. school to teach about Basic Robotics.
		EVENING	Vaudeville or drama or act on the topic "Scarcity of Water & its importance" by NNS Volunteer.
		MORNING	Starts the day with Yoga! Conducted by NSS Volunteers.
4.	2 <sup>nd</sup> MAR 2017	AFTERNOON	Voluntary Works:- All the girls of NSS went for the survey of villages.  A team of volunteers went to Z.P. school to teach about Space & Satellite.
		EVENING	Vaudeville or drama or act on the topic "Dowry System & motivational speech by Prof. Bange (Divisional NSS Officer Aurangabad) and Prof Anil Mager.
		MORNING	Starts the day with Yoga! Conducted by NSS Volunteers
5.	3 <sup>rd</sup> MAR 2017	AFTERNOON	Voluntary Work :- Maintenance of village streets & Drainage System.  A team of volunteers went to Z.P. school to teach about Carrier Guidance.
		EVENING	Vaudeville or drama or act on the topic " Uses of Electricity & Abortion".

6.	4 <sup>th</sup> MAR 2017	MORNING	Starts the day with Yoga! Conducted by Dr. U. B. Kalwane (Director SYCET Aurangabad)
		AFTERNOON	Valedictory Function :- Invited guest prof. Bange (Divisional NSS Officer Aurangabad) Mr. Jadhav (Teacher of Z.P. School).

## NSS Programmed conducted activity as per day...!

#### DAY 1st

Our journey from the college started at around 12:00 in the noon. All the volunteer cocordinators ,faculty co-ordinators were fully equipped with their own back pack .

We collected all the items which were useful for us for the work over there, such as shovels, ploughs, broom sticks, and shovels. Etc.

On the way we collected all the items for the preparation of the food and we also collected the utensils and stove.

At around 02:00 we arrived our destination and unloaded all the articles we brought.

First of all we arranged all the articles in a systematic manner in the govt Zillah parishat school provided for us , the village helped us in unloading the goods ,

Mr Jadhav sir allotted us space for placing our goods safely in the school corridor then we started providing electricity to the room which was provided for our accommodation, after we soon began arrangement for the opening ceremony of our camp.

We invited all the citizens of the village and the sarpanch and other respected citizen of the village for our open ceremony of NSS camp 2017.

After all the arrangements were made for the occasion we waited for the arrival of our respected principal DR .R.S. pawar sir

Soon sir arrived at around 05:00 and we started the program.

We invited the sarpanch of the village for garlanding the statue of CHATRAPATI SHIVAJI MAHARAJ and the camp was inaugurated our principal sir gave a very motivate speech and we promised to help the villagers in whatever way possible to us. Soon after the principal sir left we started preparation for the dinner, after few hours the dinner was served to us.

We ate the dinner and cleaned all the utensils.

All went to bed soon after it.





#### DAY 2<sup>nd</sup>

On the second day we woke up early at 05:00 in the morning and was getting ready for yoga at 06:00. Dr. uttam kalwane sir director of our college arrived and started teaching us yoga.

The yoga program lasted for 1 hour. The previous night groups were divided into six leaded by six of our co-ordinators.

The groups were as follows,

- 1. Parivarthan group
- 2. Swarajy group
- 3. Shivaji group
- 4. Sambhaji group
- 5. Rajeshree group
- 6. Bhagat singh group

Every group was given a particular task on this day the parivarthan group was incharge of the food section that day, soon after yoga tea was served for all by the parivarthan group members .

We had it and the breakfast was also served for us soon after the tea.

After having the breakfast all the volunteers of the camp went for their respective work they all came back after their work was completed at around 12:00 in the noon. Then all the volunteers of the camp sat together for having lunch which were served for us by the group members.

The lunch time was between 12:30 to 1:30 pm.

After lunch the group members were busy in preparing the dinner the remaining group members went to their respective work site for the examination of that day's work, and were planning for the next day's work.

Arjun chalwadi and a team went to Z.P school to take classes on the compute awareness, they taught the students of 7<sup>th</sup> and 8<sup>th</sup> classes about the computer, laptop, different parts of it, configuration of computers and applications.

At sharp 05:00 in the evening all the volunteers gathered to have tea and at 06:00there was a small play prepared by the NSS volunteers about the incident occurred at our camp site. After all other volunteers gathered to have dinner and soon after that we went to bed.





## Day 3<sup>rd</sup>

We woke up early at 05:00 in the morning and was getting ready for yoga at 06:00. Dr. Uttam Kalwane sir director of our college arrived and started teaching us yoga. The yoga program lasted for 1 hour.

After that at sharp 09:00 o'clock in the morning we all had our breakfast and all the group want for their work and at 01:00 o'clock in the noon all the NSS volunteers where gathered together to have lunch.

At 02:00 o'clock in the afternoon a team of NSS volunteers went to Z.P. school take class on basic robotics, parts of robots, different type of robots and it's Application, for the students of of  $7^{\text{th}}$  &  $8^{\text{th}}$  Std.

At sharp 05:00 in the evening all the volunteers gathered to have tea and After all other volunteers gathered to have dinner at 09:00 at night and soon after that we went to bed.







#### DAY 4th

We woke up early at 05:00 in the morning and was getting ready for yoga at 06:00. Dr. Uttam Kalwane sir director of our college arrived and started teaching us yoga. The yoga program lasted for 1 hour.

After that at sharp 09:00 o'clock in the morning we all had our breakfast and all the group want for their work and at 01:00 o'clock in the noon all the NSS volunteers where gathered together to have lunch.

At 02:00 o'clock in the afternoon a team of NSS volunteers went to Z.P. school take class on Space, satellite launcher, Hubble space telescope, satellite and its Application, for the students of of 7<sup>th</sup> & 8<sup>th</sup> Std.

At sharp 05:00 in the evening all the volunteers gathered to have tea. And planed for a play to be organized for the villagers by the volunteers,

And around 07:00 pm to 09:00 pm there were some motivational plays and motivational speech by Prof. Bange (Divisional NSS Officer Aurangabad). After all other volunteers gathered to have dinner and soon after that we went to bed.



#### DAY 5th

We woke up early at 05:00 in the morning and were getting ready for yoga at 06:00. Dr. Uttam Kalwane sir director of our college arrived and started teaching us yoga. The yoga program lasted for 1 hour. After that at sharp 09:00 o'clock in the morning we all had our breakfast and all the group went for their work.

At 01:00 o'clock in the noon all the NSS volunteers where gathered together to have lunch. At 02:00 o'clock in the afternoon a team of NSS volunteers went to Z.P. school take class on carrier guidance, for the students of of  $7^{th}$  &  $8^{th}$  Std.

At the same time all the girl volunteers went for the survey of the village, regarding the education, living condition of people, with many other

Perspective. At sharp 05:00 in the evening all the volunteers gathered to have tea. And planed for a play to be organized for the villagers by the volunteers,

Around 07:00 pm to 09:00 pm there were some motivational plays on the topic of scarcity of water, dowry system, etc and motivational speech by Prof. V.A.Solanke. After all other volunteers gathered to have dinner and soon after that we went to bed.



#### DAY 6th

We woke up early at 05:00 in the morning and were getting ready for yoga at 06:00. Dr. Uttam Kalwane sir director of our college arrived and started teaching us yoga. The yoga program lasted for 1 hour. After that at sharp 09:00 o'clock in the morning we all had our breakfast.

At 09:00 o'clock after daily routine all the volunteer went to the round in the village for examination of their work done in the past week and to take feedback from villagers.

At 12:00 o'clock in the noon we started the preparation for the valedictory function of our NSS. All the villagers where gathered at our camp site. We started the function with our chief guest Prof. Bange (Divisional NSS officer of Aurangabad), teacher of Z.P. school, elders of the village and our college NSS Program officer Prof. V.A.Solanke.

After which at 02:00 o'clock we left camp site at TAKALI village and reached collage at 04:00 o'clock.







## 7. Waste Audit

Waste is an inevitable part of our lives. Over the years as the awareness about waste management techniques has given a rise to rethink how the waste can be avoided form being sent to the landfills. The audit provides an approximation of the types of waste generated, location of waste collections, disposal techniques used, waste segregation methodologies adopted, waste management strategies that are and implemented in addition to the newer ways the can be adopted aiming to make the premise clean and sustainable. Here sustainable refers to a broader aspect to analyse whether the current techniques are having positive or negative effect on the stakeholders of the premises.

#### 7.1 Waste produced

The types of waste collected in the campus are as follows, these are separated before processing and not given to the local Corporation. The details of the quantity and type of waste are as follows.

#### 7.1.1 Waste type and production details in 2016-17

S. No	Description	CE	CSE	Elect	ETC	Engg. Sci.	Mech	МВА	Library
1	Paper waste (kg /month)	25	10	10	5	7	15	3	5
2	Plastic waste (kg /month)  Hard plastic  Soft plastic  Carry bags  Others (Papers tea cups)	- 4 - 30	- 2 - 20	- 3 - 30	- 2 - 12	- 3 - 15	- 3 - 30	- 2 - 10	- 4 - 15
3	Biodegradable waste	Tree	leaves	cutting,	Lawn	Grass cuttin	g		
4	Construction waste	It is	used fo	or refillin	g low l	ying area			

Table 16: Waste produced in 2016-17

The above summary shows Plastic waste (Carry bags) was produced in maximum quantity for a total of 162 kg followed by Paper waste of 80 kg.

#### 7.1.2 Waste type and production details in 2017-18

S. No	Description	CE	CSE	Elect	ETC	Engg . Sci.	Mech	МВА	Library
1	Paper waste (kg /month)	30	15	15	6	8	20	5	10
2	Plastic waste (kg /month) Hard plastic Soft plastic Carry bags Others (Papers tea cups)	- 5 - 30	- 3 - 20	- 5 - 25	- 4 - 15	- 4 - 20	- 5 - 30	- 4 - 12	- 5 - 20
3	Biodegradable waste	Tree leaves cutting, Lawn Grass cutting						1	
4	Construction waste								

Table 17: Waste produced in 2017-18

The above summary shows Plastic waste (Carry bags) was produced in maximum quantity for a total of 182 kg followed by Paper waste of 109 kg.

#### 7.1.3 Waste type and production details in 2018-19

S. No	Description	CE	CSE	Elect	ETC	Engg. Sci.	Mech	МВА	Library
1	Paper waste (kg /month)	30	20	20	8	7	15	5	10
2	Plastic waste (kg /month)	( = 1	_		_			_	_
	Hard plastic Soft plastic	7	5	7	5	5	6	7	8
	Carry bags Others (Papers tea cups)	33	22	20	15	25	32	12	22
3	Biodegradable waste	Tree	leaves	cutting,	Lawn	Grass cuttir	ng		
4	Construction waste	It is	used fo	or refillin	g low ly	ing area			

Table 18: Waste produced in 2018-19

The above summary shows Plastic waste (Carry bags) was produced in maximum quantity for a total of 181 kg followed by Paper waste of 115 kg.

#### 7.1.4 Waste type and production details in 2019-20

S. No	Description	CE	CSE	Elect	ETC	Engg . Sci.	Mech	МВА	Library
1	Paper waste (kg /month)	15	5	5	2	3	10	2	2
2	Plastic waste (kg /month) Hard plastic Soft plastic Carry bags Others (Papers tea cups)	- 2 - 15	- 2 - 14	- 2 - 20	- 1.5 - 10	- 1.5 - 12	- 1.5 - 20	- 0.5 - 8	- 1.5 - 12
3	Biodegradable waste	Biodegradable waste							
4	Construction waste	It is	used fo	or refilling	low lyin	g area			

Table 19: Waste produced in 2019-20

The above summary shows Plastic waste (Carry bags) was produced in maximum quantity for a total of 111 kg followed by Paper waste of 44 kg.

#### 7.1.5 Waste type and production details in 2020-21

S. No	Description	CE	CSE	Elect	ETC	Engg . Sci.	Mech	МВА	Library
1	Paper waste (kg /month)	15	5	5	2	3	10	2	2
2	Plastic waste (kg /month) Hard plastic Soft plastic Carry bags Others (Papers tea cups)	- 3 - 12	- 2.5 - 10	- 2 - 10	- 1.5 - 12	- 2 - 10	- 2 - 20	- 0.5 - 10	- 1 - 10
3	Biodegradable waste	Tree leaves cutting, Lawn Grass cutting						4	
4	Construction waste	It is	used fo	or refilling	J low lyin	g area			

Table 20: Waste produced 2020-21

The above summary shows Plastic waste (Carry bags) was produced in maximum quantity for a total of 94 kg followed by Paper waste of 44 kg.

## 7.1.6 Other types of Waste type and production details

S. No.	Type of waste	Source and quantity	Current disposal method	Can be treated?	Methodology
1	Solid waste	Toilets and others – Biodegradable waste of approx. 50-60 kg and Non-biodegradable waste of 6 kg per week	Toilet waste is led in Drain and other waste is used in compost pit; Paper waste is given to raddi	Yes	TREATED - Small biogas plant can be proposed in open space
2	Liquid waste	Toilets, wash basin, urinals, taps approx. 200 litres of water per day	TREATED - Waste water treatment plant and is reused for gardening	Yes	Can continue with the same practice

Table 21: Summary of the types of waste produced in the premises

## 7.1.7 Bins summary

There are 126 Dustbins in the premise with volume of 7 litres (small) and 60 litres (large) each. The analysis of dustbins is presented below.

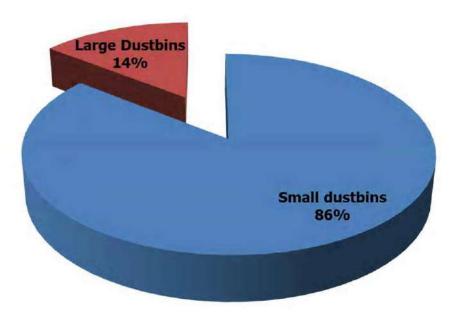


Figure 6: Analysis of dustbins in the premise

The above analysis shows 86% are Small dustbins and 14% are Large dustbins.

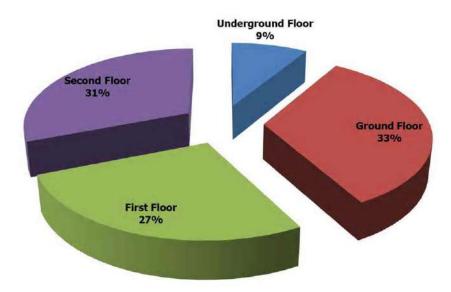


Figure 7: Analysis of dustbins in the premise

The above analysis shows 33% dustbins are present on Ground floor, 31% on Second floor, 27% on First floor and 9% on Underground floor.

#### 7.2 Waste handling

Quantification wise as per Interview and survey it was found that the Solid, Dry leaves collected is approximately 60 kg per week. The liquid and hazardous waste (septic tanks) is approximately 200 litres per week. The waste produced on campus is segregated. It is collected on a daily basis and treated in the form of waste water recycling plant and the compost pit.

#### 7.3 Waste management

The college reuses the papers. It was informed that after every 3 years the Paper waste such as journals, practical Reports were given in bulk to Raddi. Ample measures are taken to maintain hygiene. No smell problem or health related issues due to the waste are there. There are adequate numbers of bins present in all parts of building. The waste does not pollute the ground or surface water. There is no problem of air pollution from waste as informed.

The wastes from toilets are discharged to main drains through underground covered channels (Safety Tanks) thus avoiding any incident. There is provision for Sanitary

Napkin Vending Machine in the premise.

The details of the waste management through various sources are as follows:

S. No.	Туре	Size	Capacity	Yield
1.	Compost	2 x1x0.75m	1.5 CUM	20 KG
2.	Vermicomposting	2 x1x0.75m	1.5 CUM	15 KG
3.	Waste Crusher Machine	7 x1x1m	7CUM/RPM	15 KG/RPM

Table 22: Details of the waste management strategies adopted

#### **Waste Crusher Machine**

The waste crusher is a powerful and special model used as a primary machine in waste treatment. This garbage crushing machine breaks down materials into smaller pieces which makes their disposal incredibly convenient and minimal in eco-friendly manner.

## 7.4 Survey Results

An online survey was conducted to analyse the student and staff views about the Waste management practices adopted in College, following is the result received.

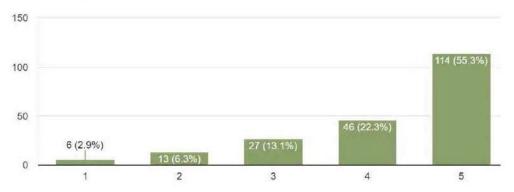


Figure 8: Waste management practices in College

There were mixed responses received the highest was for rating 5 (Excellent) at 55% followed by 22% for rating 4 (Very good).

## 7.5 Recommendations for a Sustainable Habitat for Waste

The following practice can be adopted for further up gradation.

#### a) Zero Waste

The college can undertake a zero organic waste protocol. The following practices can be adopted as part of the same.

- The food waste generated by the students and staffs are taken by them to their own home, so that, minimum waste is generated inside the premises.
- The organic waste generated in the canteen is used as feed for a biogas plant and the biogas is used as fuel in college canteen.
- Vegetable waste and other leaf litters can be used to fed in the vermi-compost
  pit and the resulting vermin-cast is used as manure in the garden.
- The chemicals from the laboratories be disposed in a sealed tank along with water, so that the chemicals undergo neutralization with the water.

As part of the above there will be a requirement for a Biogas plant, vermin-compost pit, awareness signages, sealed tank for waste water from chemical laboratory.

#### b) Twin Dual Litter Dustbin Bins

There should be more number of dual litter dustbins at various locations in areas such as Canteen, open spaces (There should be more numbers of bins in outside areas). This would inculcate the awareness of waste segregation among students.

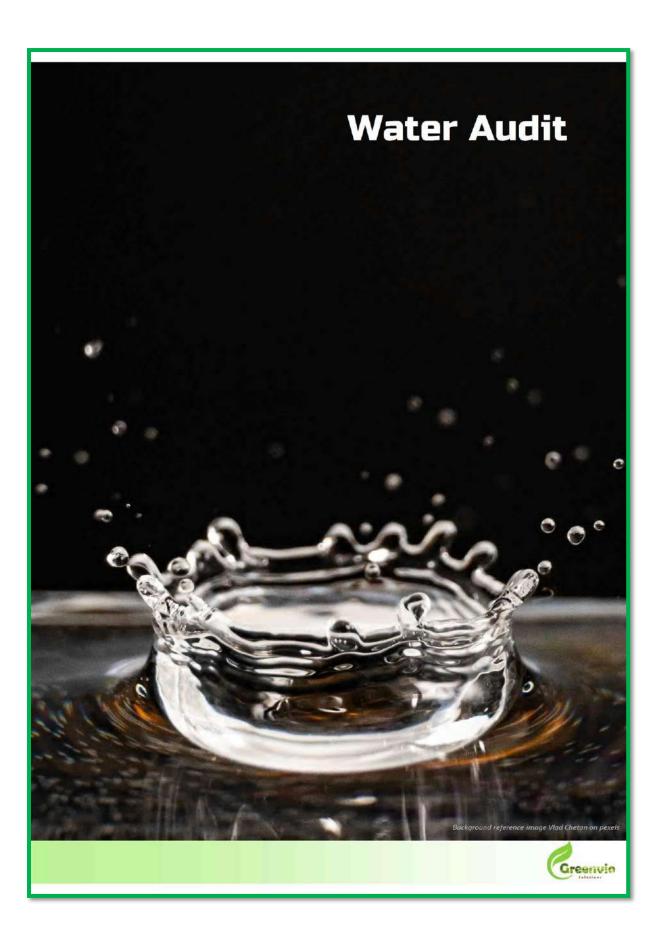
# Site investigation and data collection





Dustbins in the premise





#### 8. Water Audit

Water is one of the basic needs. Pure drinking water is a resource which needs to be preserved efficiently. Water audit helps to identify the sources of water consumption, the water requirement by the campus met by these sources. The points and effective usage of without any wastage. Understanding the techniques which are best suited to the site to increase water conservation in terms of awareness and practice.

#### 8.1 Water availability and consumption

The main source of water is through the facilities available within the premise. There is no requirement of water from the Local Municipality. Earlier there were water shortage issues, but the College management has put s additional efforts and a provision for water pond is made available within the premise. This is resulted in the positive manner as now there is ample water sufficiency in the entire premise. The total water consumption and sources of supply on the site are as follows:

#### 8.1.1 Well

There are 3 wells in the premise with a depth of 65 feet for 2 wells and 75 feet for 1 well. Around 24,000 litres of water is utilized for RO treatment toilets and bathrooms, 10,000 litres for the Canteen and 6,000 litres for the Garden.

#### 8.1.2 Pond

There are 5 Ponds in the premise and the capacity in farm pond is 2 Crore litres, natural lake-I 2 Crore litres, natural lake-II 20,000 litres and natural lake-III 1.8 Crore litres

#### 8.1.3 Water Tank

There is 1 STP Plant of 80,000 litres; 3 Underground potable water tanks having capacity of 20,000 litres each thus amounting to 60,000 litres and 8 overhead water tanks of capacity 2,000 litres each. Thus the total water stored in terms of tanks is 76,000 litres potable water and 80,000 litres recycling water.

#### 8.2 Water requirement

The main areas of water requirement and type of usage is as follows

- Drinking water Consumption of around 5,000 litres of water through Aquaguard like system available in the premise, the taps and water cooler.
- Toilet blocks General usage by occupants in toilets, urinals, bathrooms, wash basins using approx. 10,000 litres of water daily
- Cleaning of the premises The entire Institution is very well maintained with respect to hygiene and cleaning is one of the major uses of water requirement. The toilet areas are cleaned every day and the amount of water required for cleaning is 9,000 litres
- Garden and surrounding open space Cleaning, watering the plants
  requires approximately more than good amount of water, keeping in mind the
  scale of the open spaces there is supply system connected directly and the
  plants, trees are hardly watered regularly. Though, they are watered on
  alternate days in winter season and about 2-3 times a day in summer season
  on a regular climate day it is watered 3 days a week and in rainy season it is
  dependent on the monsoon showers.

#### 8.3 Areas of water usage

The following is a summary of the general water usage spaces - toilets, urinals, shower, wash basins/ taps in the premises.

S. No.	Floor	Urinals	Girls toilet	Boys toilet	Wash basins	Water coolers	Taps in garden
1	Underground Floor	4	1	1	2	1	1
2	Ground Floor	8	2	2	8	2	2
3	First Floor	8	2	2	8	2	
4	Second Floor	8	2	2	8	2	
Tot	al	28	7	7	26	7	3

Table 23: Details of the Toilet areas in the premise

Based on the inventory done and data shared by the staff it was found that the premise has a total of **28 urinals**, **14 Toilets**, **26 wash basins**, **7 Water coolers**, **3 taps**. As per the data shared by the College, it was noted that there is wastage of water to a certain extent in the form of Cleanliness of toilets.

#### 8.4 Site investigation about water management.

- The college has an excellent management system which is very appreciable. We have observed the following points.
- There was no water leakage in the entire premise, the pipes well maintained with adequate hygiene.
- The premise has an efficient water management in terms of operations and maintenance. The toilets were kept very tidy and are cleaned everyday.
- The waste water does not mix with ground water and gets directed to storm water drains. The college has rainwater harvesting system which is very useful. There is sufficient number of taps in the premise.
- · Signages are included with information about avoiding water wastage.

#### 8.5 Survey Results

An online survey was conducted to analyse the student and staff views about the Water management practices adopted in College, following is the result received.

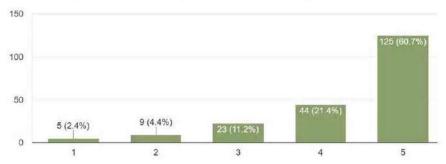


Figure 9: Water management practices in College

There were mixed responses received the highest was for rating 5 (Excellent) at 61% followed by 21% for rating 4 (Very good).

#### 8.6 Water conservation facilities adopted

#### 8.6.1 Rain water harvesting structures and utilization

The percolation tanks are set up around the campus facility. Percolation tanks are constructed a) Near the Engineering building premises b) Adjacent to the boys and girls hostel building c) Polytechnic, D Pharmacy & B Pharmacy building In the parking area open percolation tank is constructed for the rain water harvesting. The Institute is environmental conscious and works towards the sustainability of environmental resources. Aurangabad city and its surrounding regions come under medium rainfall zone. As there is a shortage of water in summer season it is important to utilize water in the most efficient way. Taking into consideration this problem of water shortage, Institute has designed a rain water harvesting system for all the buildings. The rain water collected on the roof top from Boy's hostel, Girl's Hostel as well as institute building is carried through a down take pipe which is collected in the collection tank. This initiative not only helpful for institute it is also helpful for surrounding area. Conserving rain water and utilizing it for basic purposes and fulfils a social responsibility.

#### 8.6.2 Bore well /Open well recharge

As a part of water conservation facilities that are available in the Institution, there are three wells available in the premise.

#### 8.6.3 Waste water recycling:

The rain water collected on the roof top from Boy's hostel, Girl's Hostel as well as institute building is carried through a down take pipe which is collected in the collection tank. This initiative is not only helpful for institute it is also helpful for surrounding area. Conserving rain water and utilizing it for basic purposes and fulfils a social responsibility

# 8.7 Recommendations for a Sustainable Habitat for Water

Below mentioned are few suggestions for better water management practices in the premise.

#### a) Toilet flush system

Replace the existing single flush cisterns with dual flush, if possible to include waterless urinals or e-toilets.

#### b) Waterless urinals

There can be provision of waterless urinals as a Green Building initiative in the premise, either the existing ones can be replace with such a facility of new toilets can be constructed in this manner.

# Site investigation and data collection



Rainwater harvesting



Bore well /Open well recharge



Waste water recycling





Water storage tank on roof



Water taps



# Health and Hygiene Audit



Background reference image Curology on unsplash



## 9. Health and Hygiene Audit

The hygiene is a part and parcel of our daily life. It is extremely essential to keep the surroundings clean in the same manner as we would want our houses to be. Educational Institutes have a bigger role to play in order to affect the young minds in the positive manner through better hygienic practices.

#### 9.1 Facilities available

The Institution has the following facilities as part of the premise.

- · Washroom facility in each of the Building.
- · Hand wash facility
- · 1 Sanitary napkin vending machine.
- · Drinking water facility in the form of RO, Water coolers and taps.

#### 9.2 Smoke Exposure

As per the Site visit the following analysis has a positive impact on premises.

- The college has No Smoking on its compound wall as part of the awareness.
- Canteen uses Gas cylinders for cooking, there is no utilisation of fire wood.
   Thus there is no smoke from burning of fire wood and any health issues related to the same.
- The garbage in campus is not burnt and there is not air pollution because
  of it.
- The Institution is a tobacco and smoke free campus which helps in adapting to a Healthy Institution
- There is parking provision inside the campus there is slight issue of dust owing to the same but it is balanced with the good vegetation in the premise.

#### 9.3 Hygiene

As per the Site visit the following analysis has a positive impact on premises.

 For overall hygiene of the students and staff there are facilities such as Washroom facility on ground floor, hand wash, Sanitary vending machines, drinking water facility. The hygiene of toilet areas is well maintained.

- The entire campus is cleaned on daily basis, it is very appreciating that there are adequeate Maintenance staff who strive their best to take care of the entire premise in the most excellent way possible.
- There are designated Hygiene specialist and Maintenance staff who keep a regular check about the operation and maintenance of the toilet areas and the equipments, lights and all facilities on each floor.
- Water management initiative with appropriate hygiene is undertaken. The areas
  of water tanks in site on ground floor are clean and no mosquito breeding spots
  are there.
- There are pest controls program practiced with appropriate sanitation facilities and Annual Maintenance Contract for pest control is done once a year by professional Pest control units
- The food premises and equipments are cleaned as per schedule with special care taken to avoid any water stagnation. The food waste and other refuse are removed periodically from food handling areas to avoid accumulation.
- As part of Tree Plantation programme the initiative of Swachh Bharat
   Abhiyan of Govt. of India is undertaken during various occasions.
- · There are appropriate storage areas which are well maintained.

#### 9.4 On-site investigation

During the physical verification of the site, the following points were noted.

- · All the facilities are cleaned on a daily basis.
- The Maintenance staff are allotted the responsibility of the washroom hygiene and they do a very commendable and excellent job to maintain hygiene of the premise.

# 9.5 Recommendations for a sustainable habitat for Health & Hygiene

As per out physical site verification for this audit the efforts of the College are highly appreciable as they are very well maintained. As an up gradation some additional signages pertaining to cleanliness can be included in the premise.

# Pest control activities details

SHREE JAY MURDESHI	VAR PES	T CONTRO	L SERVICES
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## Pest control activities details

## Shreeyash Pratishthan

College of Engineering / MBA / Polytechnic /
D. Pharmacy / B. Pharmacy / Arts, Commerce & Science.

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Work Order

Jay Murdeshwar Pest Control Services

waraj Nagar, Mukundwadi Aurangabad - 431003

Subject Reference

: - Work Order for Pest Control in Engg + Poly + Pharmacy. : - Your Quotation date 31,07,2021

With reference to above, we are pleased to place a work order for peat control services as under

E- No	Particulars	Rate Rs.	Amount Ma
Sr.No.	Pest Control General Spray in Engineering Library, Phrancy Library, Poly Library inclusive of Tones + Bathroom General Spray, Mosquito Spray, Rat Treatment,	2300	2300
	Anti Termite Spray, Fly Treatment		414
-	Ge Total		2715

#### Terms & Condition:

After completion of work in our campus Payment:

Taxes:

Inclusive of all taxes Applicable TDS may be deducted from your final payment

TDS: Bill to:

Shreeyash Pratishfahn, Aurangabad (M.S)

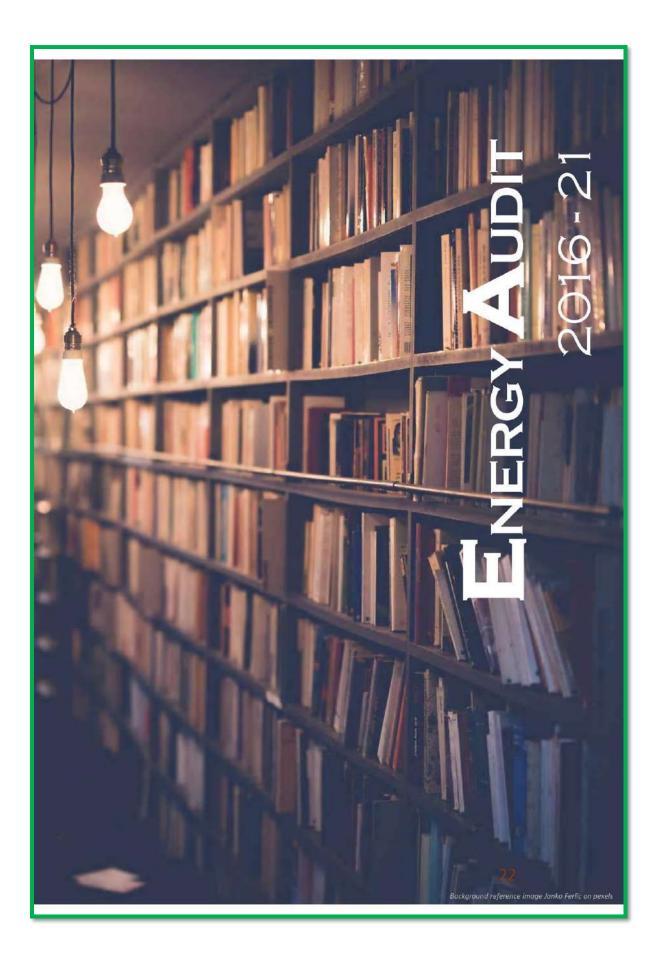
Other:

Certificates will be required for pest control wrisk

Librarian

Address: Shreeyash Technical Compus, Gut No.258 (F), Near SRPF Camp, Satara Paricar, Beed by Pass, Aurangabad - 431010. Ph 0240 - 6608761 / 777 / 701 www syp.ac.in





## 10. Energy Audit

#### 10.1 Sources of Energy consumption

The premise uses following sources of energy consumption.

#### 10.1.1 Primary sources

**1. Electrical (Metered)** – Light, Fans, AC, Equipments, Pumps consume approximately 8,661 Units for per month (average).

#### 10.1.2 Secondary sources

- Generator There are 1 Diesel Generator, used occasionally only during the examination. As per our analysis
- Solar Panel There are Solar Panels of 1kWp and it was purchased for Rs. 2,94,880/-

#### 10.2 Site investigation analysis

The Site investigation observations and interviews with the Maintenance staff, Electrical department in charge are summarised below:

- The switch-off drills are practised at present, the inbuilt power saving mode in every Comp is functioning.
- There are display boards encouraging staff and students to save energy are put up in the classrooms and laboratories.
- There are no Ultra-violet lights and any other harmful lights used in the premise.
- · All class rooms and office is ventilated using natural light.
- · The staff are very well trained on usage, maintenance.

#### 10.3 Actual Electrical Consumption as per Bills

The admin department had shared the bills for Meter and it is the main source of energy supply. The supplier is Maharashtra State Electricity Distribution Limited. The type of supply is **LT – Low Tension VI B1.** The details of unit consumption meter wise are as follows:

Month	2016-17	2017-18	2018-19	2019-20	2020-21
July	3,66,262	13,337	14,677	16,227	3,058
August	3,95,801	18,847	19,474	1,868	3,846
September	4,03,938	18,830	21,105	22,914	5,381
October	4,20,967	18,752	21,105	19,253	5,319
November	4,31,252	8,546	21,105	17,864	5,319
December	4,42,859	16,804	13,510	17,998	13,275
January	4,53,821	16,829	16,782	16,613	7,456
February	4,65,512	16,766	18,533	19,901	9,050
March	4,82,522	22,039	24,541	19,901	10,520
April	5,24,844	21,528	28,671	18,171	6,202
Мау	5,47,549	18,243	24,216	18,171	9,520
June	5,55,181	12,048	12,625	30,457	8,250
Total	54,90,509	2,02,569	2,36,344	2,19,338	87,196

Table 24: Study of the electricity consumption of the meter in premise

The summary of the above study shows the average consumption varies.

# 10.4 Calculated Electrical Consumption as per inventory

The electricity bills provide actual consumption data. The following is the calculated consumption. It is done to understand the percentage of energy usage in the premises by various applications. It is based on the inventory collected and interviews with the staff. The additional data such as wattage is taken from market research. In terms of electrical consumption, the main sources are lights, fans, ac, equipment. In this the key energy is consumed by Motors used for AC which are considered in equipment analysis. The inventory and data collection for sources of energy consumed in the premise in summarised in the following sections. Note: The following analysis is combined for entire premise taking into considerations the duration before pandemic to understand the consumption pattern as post pandemic the premise is used only for a few hours.

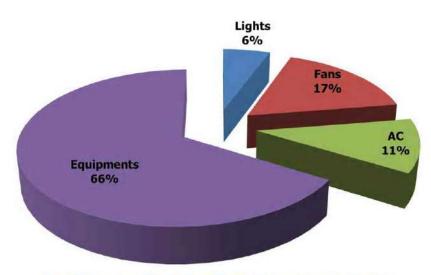


Figure 10: Summary of the Calculated Electrical Consumption as per inventory

The above graph shows that Equipment consumes 66% followed by Fans at 17% while AC consumes 11% and Lights consume 6% of the total calculated electrical energy.

#### 10.5 Survey Results

An online survey was conducted to analyse the student and staff views about the premise, following are some of the reviews.



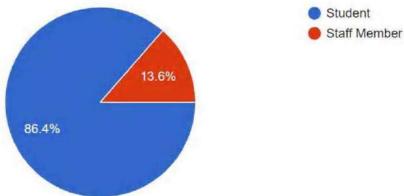


Figure 11: Participation analysis in the survey

A total of 206 responses were received out of which 86% were students.

#### 10.5.2 Energy management practices adopted in College

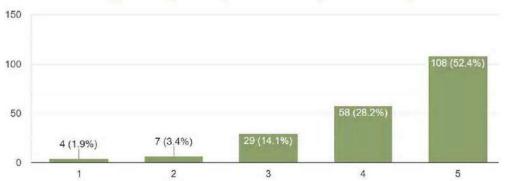


Figure 12: Energy Management practices in College

The students, staff (almost 52%) of the responses found the practices to be excellent.

#### 10.6 Lights

#### 10.6.1 Types of lights

There are a total of **427 lights in the premises;** the following table shows the various types of lights in the premises.

S. No.	Туре	Nos.
1	Halogen	2
2	CFL	22
3	LED Lights	403
Total		427

Table 25: Summary of the types of Lights in premise

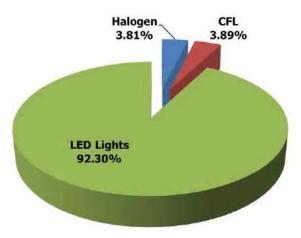


Figure 13: Types of Lights in the premise

The analysis of the types of lights in premises shows LED Tubelights consume 17,439 kWh at 92% followed by CFL lights consuming 735 kWh at 3.89% the Halogen consumes 720 kWh at 3.81%

#### 10.6.2 Floor-wise consumption analysis

The energy consumption of Lights is **18,894 kWh** of energy; the following graph shows the floor wise consumption. This section analysis constitutes all buildings as a single entity.

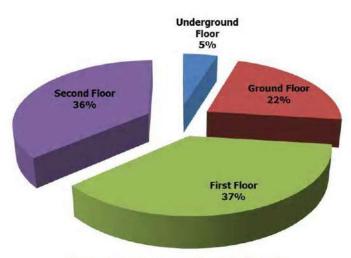


Figure 14: Energy consumed by Lights floor wise

The above analysis shows the lights in the First floor consumes the highest amount of energy of 7,014 kWh at 37%, the Second floor consumes 6,972 kWh at 36% whereas the Ground floor consumes 4,234 kWh at 22% and the Underground floor consumes 926 kWh at 5%

#### 10.6.3 Section-wise consumption analysis

The energy consumption of Lights is **18,894 kWh** of energy; the following graph shows the floor wise consumption. This section analysis constitutes all buildings as a single entity.

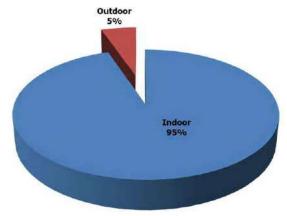


Figure 15: Energy consumed by Lights section wise

The above analysis shows the lights in the Indoors consume the highest amount of energy of 18,146 kWh at 95% whereas the Outdoors consumes 1,000 kWh at 5%

#### 10.6.4 Requirement of NAAC

#### 10.6.4.1 Alternative Energy Initiative

**Percentage of power requirement met by renewable energy sources** – There are solar panels available in premise at present and 6 Desktop Computers are connected to the solar panels thereby only 0.91% of the energy is met as the rest is given back to the grid.

#### 10.6.4.2 Percentage of lighting power requirement met through LED

The premise has LED lights in form of Tubelights, floor lights and 92% of the lighting requirement is met through LED.

#### 10.6.5 Site investigation observations

Some of the points noticed are as follows:

- 1. All lights are in working conditions
- 2. Daily monitoring and check is done by the maintenance staff.
- 3. There was no fuse defect observed.

#### 10.7 Fans

#### 10.7.1 Types of fans

There are a total of **444 fans** in the premise. The following table shows the various types of fans in the premises.

S. No.	Туре	Nos.
1	Exhaust fan - Large motor	2
2	Exhaust fan - Small motor	29
3	Wall mounted	4
4	Ceiling	409
Total		444

Table 26: Summary of the types of fans in premise

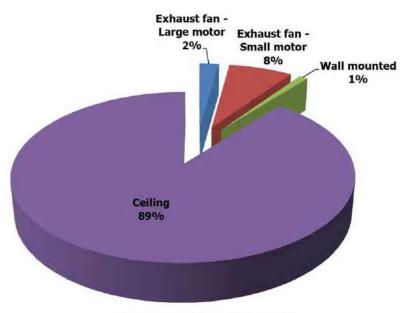


Figure 16: Types of Fans in the premise

The analysis of the types of fans in premises shows Ceiling fans consume 51,534 kWh at 89% while the Exhaust fan - Small motor consume 4,263 kWh at 8% the Exhaust fan - Large motor consume 1,296 kWh at 2% and the wall mounted fans consume 588 kWh at 1%.

#### 10.7.2 Floor-wise consumption analysis

The energy consumption of Fans is **57,681 kWh** of energy; the following graph shows the floor wise consumption. This section analysis constitutes all buildings as a single entity.

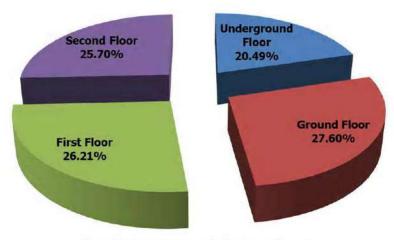


Figure 17: Energy consumed by Equipment floor wise

The above analysis shows the Fans in the Ground floor consumes the highest amount of energy of 15,918 kWh at 28% followed by the First floor consuming 15,918 kWh at 26.21% whereas the Second floor consumes 15,120 kWh at 25.70% and Underground floor consumes 11,817 kWh at 20.49%

#### 10.7.3 Site investigation observations

Some of the points noticed are as follows:

- 1. All fans are in working conditions
- 2. Daily monitoring and check is done by the maintenance staff and admin staff in an excellent manner.

#### 10.8 AC

#### 10.8.1 Types of AC

There are **11 Air conditioners** in the indoors of the premise. Below mentioned is a summary of the AC in the premise.

Sr. No.	Room No.	Floor	Numbers
16	101	Ground Floor	2
33	118	Ground Floor	5
46	130	Ground Floor	4
Total			11

Table 27: Details of the AC in premise

We have found the AC are consuming an adequate amount of energy hence they can be replaced only when they stop functioning or College is undergoing renovation as the wattage of current AC is very close to the star rated appliance and current replacement will have a negligible variation.

#### 10.8.2 Site investigation observations

Some of the points noticed are as follows:

- Daily monitoring and check is done by the maintenance staff and admin staff in an excellent manner.
- 2. The Outdoor Units are properly cleaned and maintained well.
- 3. The Outdoor Units do not have any dust collection problem.

## 10.9 Equipment

## 10.9.1 Types of Equipment

There are a total of **57 types of equipment totalling to 422 in number** in the premise. The various types are mentioned in the table below.

S. No.	Equipment Type	Number
1	ACDC Convertor	1
2	Bending Machine	2
3	Bomb Calorimeter	1
4	ССТУ	8
5	CCTV Display	5
6	Circuit Bridges	1
7	Compressor	1
8	Concrete Testing Machine	1
9	Coolant Const.	1
10	СТМ	1
11	DC Series Generator	1
12	DC Shungenerator	1
13	DCDC Convertor	1
14	Desktop Computer	255
15	Earth Tester	1
16	Electrode	1
17	Energy Meter	1
18	Engine Condenser	1
19	Engine Part Manufacturing	1
20	Evaporation Machine	1
21	Fax Machine	1
22	Oven	1



23	Oil Breaking Tester	1
24	Muffle Furnace	2
25	Oven	1
26	PH Meter	1
27	Induction Motor	1
28	Power Circuit	4
29	Lathe Machine	5
30	Fire Alarm	1
31	Rebound Hammer	1
32	Printer	22
33	Pump	12
34	Projector	3
35	Spectrophotometer	1
36	Refrigerator Const.	1
37	Refrigerator	1
38	Solid Breaking Tester	1
39	Single Phase Dc Convertor	1
40	Single Phase Transformer	1
41	Synchronize Generator	1
42	Solar Panel Kit	1
43	Sanitary Vending Machine	1
44	RO Water Filter	2
45	Spectrophotometer	2
46	Venturi Meter	1
47	Vibrating Machine	1
48	UTM	1



	Total	422
57	Telephone	33
56	Wifi Router	2
55	Weight Balance	5
54	Water Cooler	7
53	Wood Cutter	6
52	Welding Machine	8
51	Three Phase Transformer	1
50	Venturi Meter	1
49	Three Phase Transformer	1

Table 28: Types of equipment in the premise

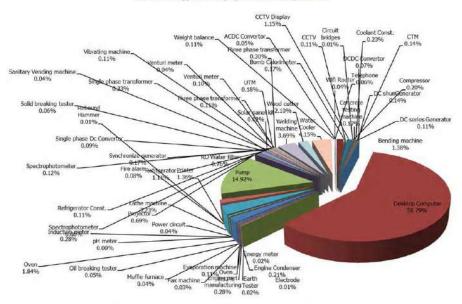


Figure 18: Summary of Energy consumed by Equipment

The above summary shows that **Desktop (Computers) consumes more energy** at **58.79%** while **Pump at 14.92%** the **Water cooler consumes 4.15%** and the **Welding machine consumes 3.69%** these are maximum consumers as compared to other equipment.



#### 10.9.2 Floor-wise consumption analysis

The energy consumption of Equipment is **2,27,735 kWh** of energy; the following graph shows the floor wise consumption. This section analysis constitutes all buildings as a single entity.

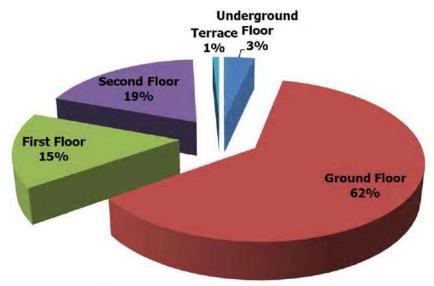


Figure 19: Energy consumed by Equipment floor wise

The above analysis shows the equipment in the **Ground floor consumes the highest amount of energy of 1,40,325 kWh at 50%** the **Second floor consumes 42,324 kWh at 19%** the **First floor consumes 35,229 kWh at 15%**the **Underground floor consumes 8,128 kWh at 3%** and least energy is
consumed by **Terrace floor of 1,728 kWh at 1%** 

#### 10.9.3 Site investigation observations

Some of the points noticed are as follows:

- All Equipments are in working conditions and Daily monitoring and check is done by the maintenance staff and admin staff in an excellent manner.
- 2. No defect was found in any equipment of electrical consumption.



#### 10.10 Recommendations for a Sustainable Habitat

Over the time energy efficient appliances have been a boon not only to the energy saving parameters they adhere to but also the eco-friendly habits it helps to inculcate. The Institution such as Schools and Colleges are the best way to implement these initiatives. It creates awareness among the students at a young age. The Institutions also act as a symbol and representative of being an energy efficient premise. Following the analysis we found are some of the suggestions which can be implemented for an energy efficient Institution. This would help in reduction of the current electrical consumption by a major percentage.

#### 10.10.1 Lights

The current CFL consumes 25W (only 2 in numbers) it can be replaced with LED lights consuming 12W and thus there will be a 50% reduction although these are in very small numbers but it would be a good practice to replace. The current Non-LED Tubelights occupy 688 nos. of the total lights in the premise. These consume 40W when in use and these should be replaced with LED lights which consume on an average 16-20W when in use. The following graph shows a comparison of the current consumption and consumption of all **22 CFL Lights on all floors** if replaced with LED lights.

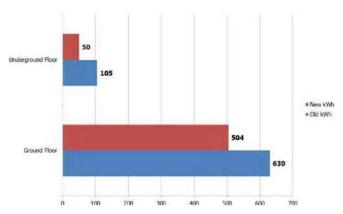


Figure 20: Analysis of current and new lights

The above analysis shows reduction of average of **36% reduction** in energy consumption if replaced with energy efficient appliance.

It will be suggested to either replace these now if College can have certain plans else the replacement can be done when Tubelights get damaged.



#### 10.10.2 Fans

The current Fans are in proper working conditions and maintained well. The ceiling fans are in more quantity and consume at least 60W when in use. These should be replaced with energy efficient fans consuming 32W when in use.

The following graph shows a comparison of the current consumption and consumption of all **409 ceiling fans on all floors** if replaced with star rated appliance.

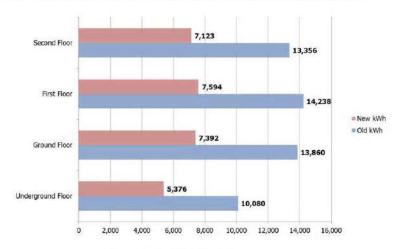


Figure 21: Analysis of current and new fans

The above analysis shows reduction of average of **47% reduction** in energy consumption if replaced with energy efficient appliance.

It will be suggested to either replace these now if College can have certain plans else the replacement can be done when fans get damaged or are not in working condition.



#### 10.10.3 Equipment

Among all equipment the computers are in maximum number and suggested to be replaced with laptops as this would be energy efficient. A normal computer consumes on an average 250W and it is to be connected all time when it has to be used. On the contrary a laptop consumes 40W and has a battery backup which lasts upto 4 hours.

The following table shows a comparison of the current consumption and consumption of the **255 desktop computers** if replaced with laptops.

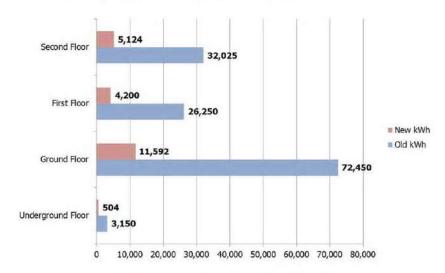


Figure 22: Analysis of current computers and new laptops

The above analysis shows reduction of average of **84% reduction** in energy consumption if replaced with energy efficient appliance.

It will be suggested to either replace these now if College can have certain plans else the replacement can be done when the devices get damaged or are not in working condition.



# 11. Towards a Healthy & Sustainable Institution

#### 11.1 Inputs by Greenvio Solutions

This is unique USP of College and will be added in Main Report.

Based on the analysis of the study of premises in addition to the recommendations provided in each section of Ecological, Water, Waste and Energy Audit the College can adopt the following strategies towards a Healthy and Sustainable Institution practices.

- a) Terrace farming There can be provision of terrace farming alongside the Canteen on Terrace and kitchen garden practices in a designated area of the open space this would enhance the biodiversity and be useful in training students and staff about the healthy practices and vegetables grown which would be used in Canteen. It helps in capacity building as well as the smaller steps taken have huge impacts when each student would adopt these practices in their homes or societies and grow kitchen garden, terrace garden there will be a long term benefit for the environment as a whole.
- b) Cutlery in the Canteen The regular plastic and steel plates, spoons used in Canteen can be replaced with eco-friendly and organic leaves, paper straw, disposable plates, edible spoons and tables made out of sugarcane waste or bamboo. This will be first of its kind initiative to be adopted and practiced thus also inculcating the healthy practices in students.
- c) Waste vio Stepping up a little further an initiative can be undertaken wherein College can tie up with an organisation and students can be encouraged to collect dry waste and electronic waste such as newspapers, old computers and others and hand over to organisation on a weekly or monthly benefits such as awareness, eco-friendly habits in becoming a responsible citizen.
- **d) Signages** In addition to the signages being in regular language there can be additional signages in braille language for the specially abled students.



#### 11.2 Survey Results

An online survey was conducted to analyse the student and staff views about what changes according to you can be undertaken for Green audit improvement in College premise and activity, some of the key responses are listed below. Whereas many responses stated there were no changes requires because the present practices are excellent.

- Promotion of E-Vehicles for staff, complete electrification of building by solar panels, plastic free campus and plantation of trees should be increased
- Awareness programs such as webinar, workshops, hands-on training are conducted. Slogans, banners, and posters are pasted on walls and e-posters are shared through social media platforms.

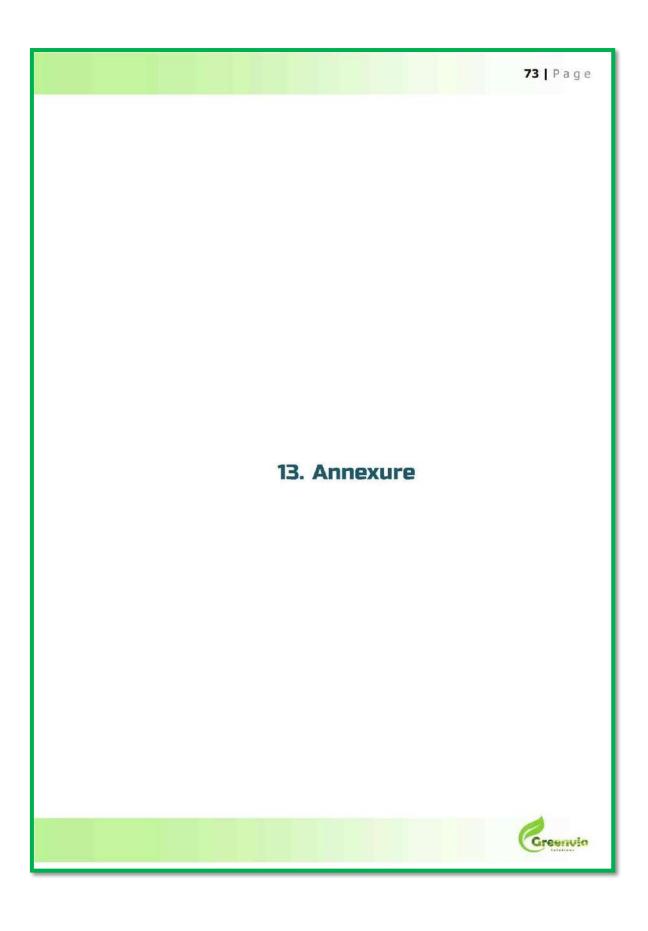
However, it should be noted that the College has taken up multiple initiatives and because of Pandemic the students have not practically visited the campus so many of these points are not mandatory at the moment.



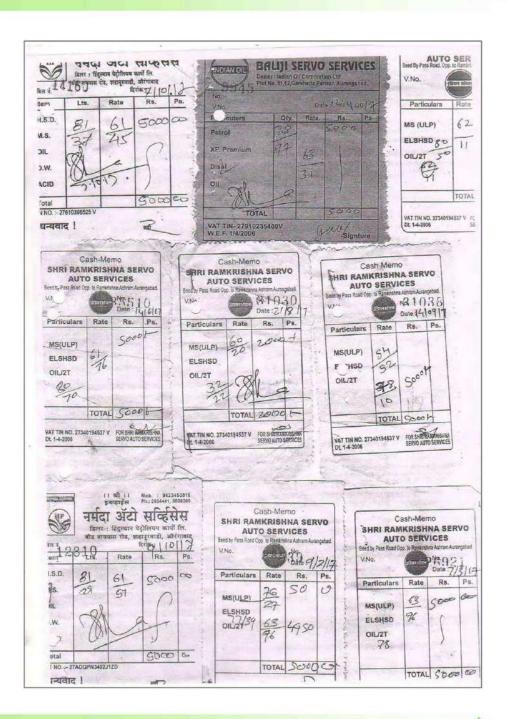
## 12. References

- 1. Uniform Plumbing Code India, 2008
- IGBC Green Existing Buildings Operation & Maintenance (O&M) Rating system, Pilot version, Abridged Reference Guide, April 2013
- 3. IGBC Green Landscape Rating system, March 2013
- BOMA Canada Waste Auditing Guide, Best Environmental Standards, BOMA BEST - Canada
- 5. Climate data <a href="https://www.accuweather.com/en/in/aurangabad/">https://www.accuweather.com/en/in/aurangabad/</a>
- 6. Used only for understanding Universal design Universal accessibility Guidelines
  for Pedestrian, Non-motorizes vehicle and Public Transport Infrastructure –
  Report guidelines by Samarthyam (National centre for Accessible Environments)
   an initiative supported by Shakti Sustainable Energy Foundation.

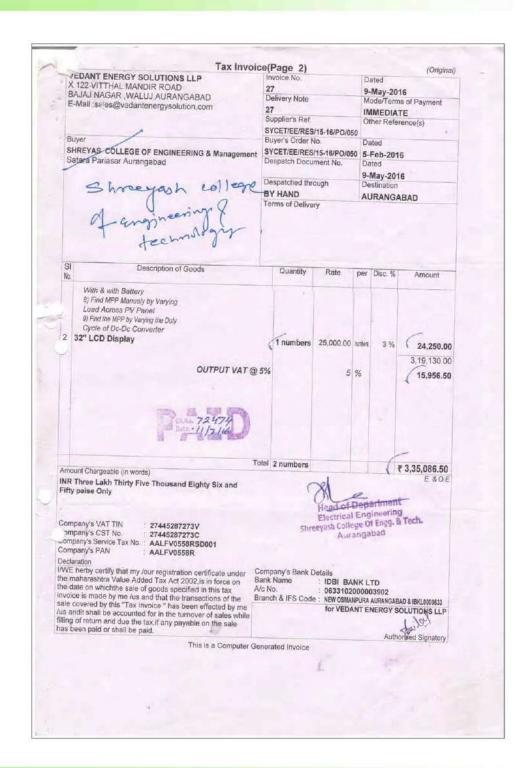




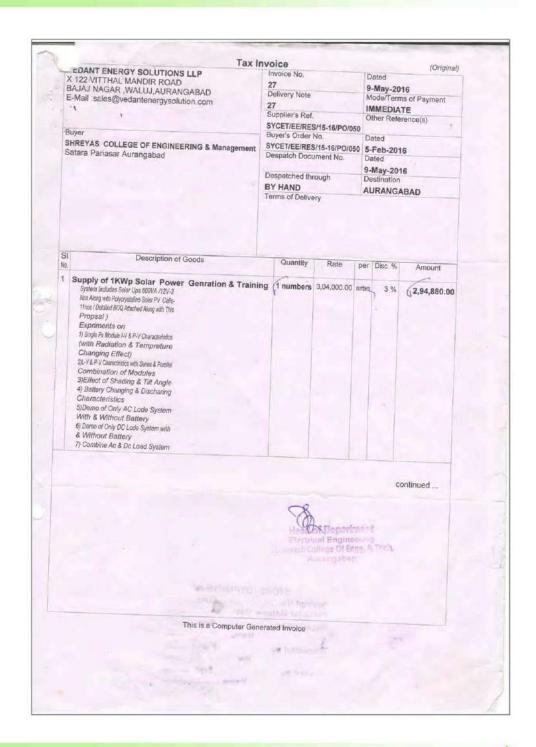
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Shreeyash Pratishthan's

# Shreeyash College of Engineering & Technology, Aurangabad



(An ISO 9001 : 2008, ISO 14001:2004 EMS & ISO 18001:2007 OHSAS, Certified Institute)

Approved by : AICTE. New Delhi. Recognised by : Govt. Of Maharashtra & DTE, Mumbai Affiliated to : Dr. Babasaheb Ambedkar Marathwada University, Aurangabad. (Institute Code 2112)

Ref. SYCETEE RES/15-16 PO/050 ...

Date: 05/02/2016

Date: 29th Jan, 2016

M/s, Vedant Energy Solutions LLP X-122, Vithal Mandir Road, Bajaj Nagar, Waluj, Aurangabad

# Kind Attention :- Mr. Kailash Deshmukh ( Contact No.- 8888875805

Subject: Supply of the lab equipments for Renewable Energy lab at Shreeyash College of Engineering & Technology Aurangabad.

REF: Our Enquiry dated- 10/01/2016

Your quotation Ref. no VES /1-16/0015 dated 18/01/2016

The undersigned is pleased to accept the rates quoted by you & request you to please arrange to supply the following Equipments as per the specifications, terms & conditions

You are requested to please acknowledge the receipt of the order & convey your stipulated there in. acceptance within week's time for supply.

Encl.-1. List of equipments.

(Er.Basawaraj Mangrule) Shreeyash Pratishthan,

Aurangabad.

Copy to -1) Dept of Electrical Engineering through Principal & Director campus for follow up & needful.

2) Accounts Section for needful action.

3) Stores In charge for record.



#### List of equipment:

Sr.No.	Description	Qty.	Rate per unit( Rs)
	Supply of 1 KWp Solar Power genration and Training System Includes solar ups 600VA/12V -2 Nos along with Polycrystaline solar PV cells -11 Nos (Detailed BOQ attached along with this proposal)	01 No's	3,04,000
2	Software development charges	01 No's	50,000
3	32" LCD display for voltage and current measurement *	01 No's	25,000
-	Sub Total		3,79,000
	Discount @3%		11,370 @
	Total		3,67,630
TA	AXES: - 5% VAT (3,19,130) + 14,5% Service Tax (4	(8,500)	22,989
		tal Amount	3,90,619

(Three lack Ninety thousand Six hundred nineteen rupees only)

#### General terms & Conditions:-

- 1. Taxes:
- a) VAT @ 5% .for Rs (3,19,130)
- b) Service Tax @ 14.5% for Rs (48,500)
- 2. Delivery Period Within 30 days from the date of this order.
- 3.FOR Destination At the site of Shreeyash College of Engineering & Technology Gat no. 258 Satara Parisar, Beed Bypass Aurangabad 45.
- Specifications of Material The equipment supplied should be strictly as per specifications given in the order otherwise material will be rejected.
- Payment 50% advance along with PO & balance after satisfactory demo & working of the equipment.
- Legal Dispute Regarding any dispute, if arises, the decision of the undersigned will be final & will be binding on you. Court of jurisdiction will be Aurangabad for any legal dispute.

Chairman.

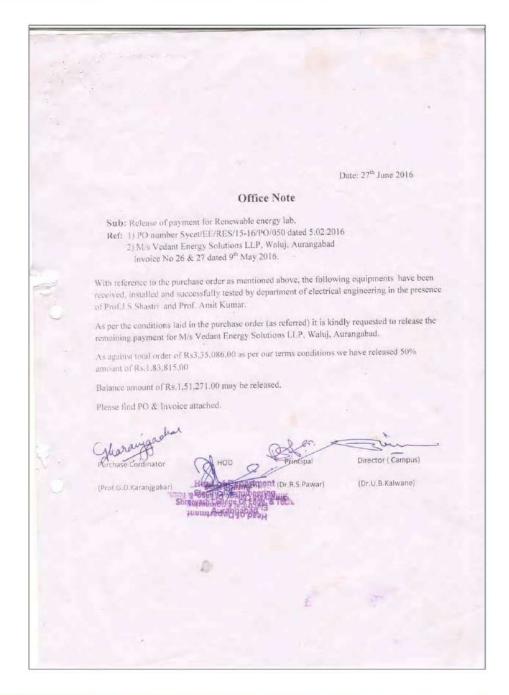
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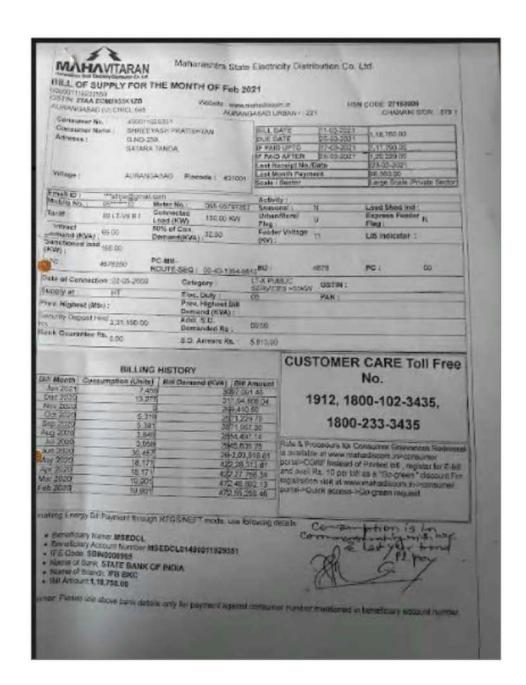




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## One of the set of Electricity bills





# Education amidst the nature

Acquiring Technical Knowledge in an ecologically friendly environment

The case of Shreeyash Pratishthan's

Shreeyash College of Engineering & Technology, Aurangabad

### Ar. Nahida Abdulla

Based on the Green Audit Study 2016-2021

Technical Institutes are a boon in the field of Academic studies in the Indian Education system. Apart from providing a specialized education these Institutes train a student into a Professional who is ready to face the market, step in the Industry, establish companies and contribute towards the economic development of the country in a faster pace as compared to students from other courses.

These Institutes differ not just in the syllabus as compared to regular courses but also in terms of the Infrastructure provided. They have huge spaces allocated for experiments, workshops which act as a boon in polishing the efforts of the young minds with practical and on-site experience within an Institutional premise.

The prestigious SYCET Premise is spread around 53 acres of lush green land amidst the urban scenario. The premise houses one of the premier Engineering and Management Institutes in the city of Aurangabad. It is known for its quality education and state of art Infrastructure facilities provided to the students and staff. It is one of its kind Institutes in the city to have almost all the provisions required for a Green Building.

As the title rightly suggests for the Institute to acquire Education amidst the nature, the balance of open landscape and huge appreciation spaces all over the surrounding helps in providing a pollution free atmosphere to the stakeholders of the premise. The availability of features such as Rainwater harvesting, waste water management, renewable energy, LED Lights, waste reuse in terms of electronic waste being converted into materials required for experimentation purpose are all examples of the collective efforts of the students and staff in maintaining the premise to the best of their abilities. We hope these efforts will be continued in the long run and prove be an example for all the Institutes in the country.

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777, Street No. 9, Krishna Nagar, Khanna - 141401, Punjab, India, Front cover & back cover – Shreeyash College of Engineering & Technology