



**ZEAL EDUCATION SOCIETY'S
ZEAL COLLEGE OF ENGINEERING AND RESEARCH
NARHE | PUNE -41 | INDIA**



7.1.3: The Institutional Environment and Energy Initiatives

1. Environmental and Energy Audit:

The institute has regular practice to conduct Environmental and Energy audit. Such audits are conducted through external agency. The agency deputed is certified auditor.

*Energy and Green Audit Report
for Zeal College of Engineering and Research, Narhe*

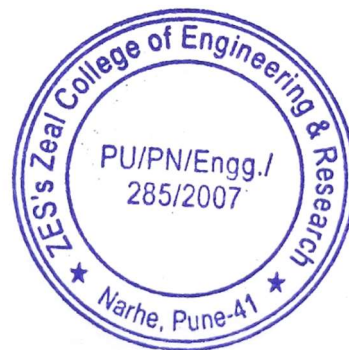
Acknowledgement

Team Enertek wishes to thank trust members and staff members of Zeal College of Engineering and Research and the ever-helping team members of administrative team. Team Enertek wishes to express their gratitude for all the help extended to our team members.

Team Enertek



Anand Dande – CEA 29754
BEE Certified Energy Auditor





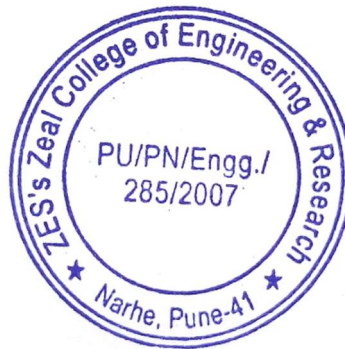
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**Energy and Green Audit Report
for Zeal College of Engineering and Research, Narhe**

The summary of expenses to be incurred for upgrading the electrical system, including future addition of equipment's in next 5/6 years, is as under:

Sr. No.	Description	Cost Savings, Rs. Lakh	Expected Expenses, Rs. Lakh	Simple Payback period
1	Installation of APFC panels for both energy meters to maintain power factor to unity		0.9	< 3 Years
2	Replace existing tube-lights with 20W LED tube-lights, including addition of fixtures		3.22	
3	Replace existing ceiling fans with 30W BLDC fans, including addition of new fans	2.8	16.3	< 2.5 Years
4	Replace existing Water pumps with new energy efficient pumps, including piping	0.16	1.8	< 3 Years
	Total:	2.96	13.31	



*Energy and Green Audit Report
for Zeal College of Engineering and Research, Narhe*

Chapter 2

Billing Analysis:

Zeal College of Engineering and Research receives electricity supply from MSEDCL. One LT energy meters were installed for the college premises at electrical room.

The electrical load mainly comprises of the classroom lighting, office lighting, fans, Split AC units, domestic water pumping on an average, the building functions for about 10-11 hours a day for five and half days a week.

Sr. No.	Energy Meter Number	Tariff category	Phase	Contract Demand (kVA)	Connected Load (kW)	Operation status
1	170019032730	LTVII -B	3	188	150	Operational

Connected Load List:

A Building:

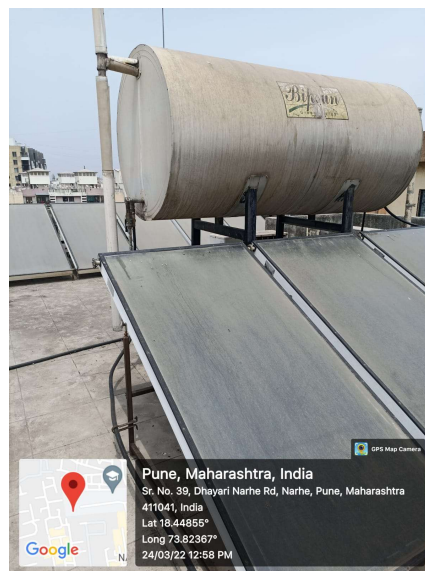
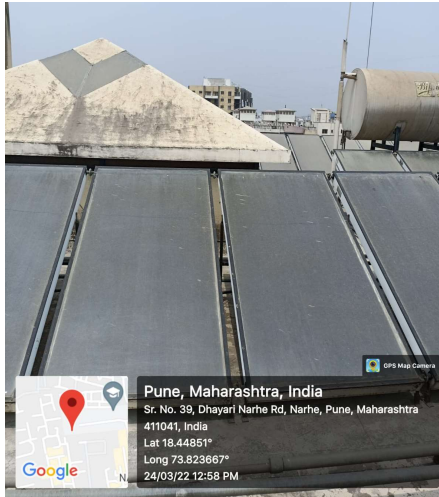
Sr. No.	Load	Power (W)	Quantity (Nos.)	Total Load (kW)
1	LED Tube Light	8	37	0.296
2	LED Tube Light	12	3	0.036
3	LED Tube Light	18	31	0.558
4	LED Tube Light	20	51	1.02
5	Tube Light	36	26	0.936
6	Tube Light	40	101	4.04
7	Ceiling Fan	85	128	10.88
8	Split AC Unit	1800	7	12.6
9	Water Pump	5500	1	5.5
10	Computer	100	100	10
			Total:	46.87

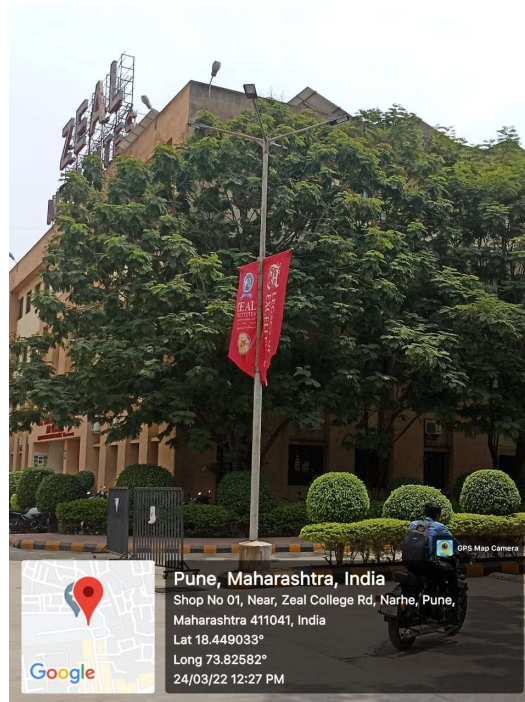
B Building:

Sr. No.	Load	Power (W)	Quantity (Nos.)	Total Load (kW)
1	LED Tube Light	18	5	0.09

2. Clean and Green campus initiatives

- a. The institute has established system of a 120kW Solar system since 2017 as a part of an alternate energy initiative. Percentage of power requirement of the College met by the solar system is 41-45 kW.

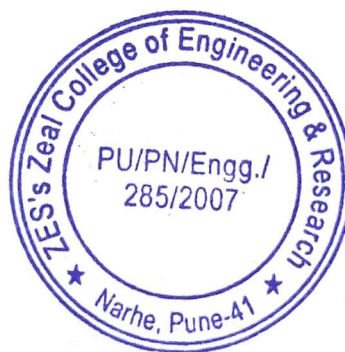




3.

Solar street lights

- b. The campus has solar powered street lighting. Each building entrance light is being equipped with sensor based lighting system.
- c. The campus has an efficient system for waste management. The housekeeping team takes care of the segregation of solid waste which mainly includes waste paper, garden waste, and plastic waste. Handling over the collected waste in a segregated manner to local authorities is practiced weekly.





Photograph showing typical segregated solid waste collection system



Photograph showing typical solid waste collection system

- d. For the collection of E-waste separate drive is arranged once a year. The collected E-waste is handed over to authorized agencies. Dustbins with standard color codes are placed at various locations for dry, wet, and e-waste.

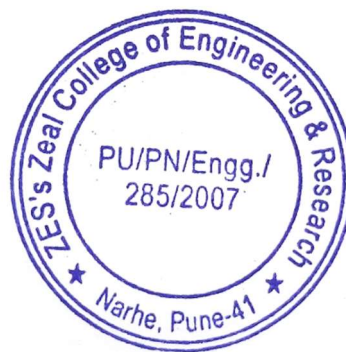


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Reports on

**Beyond The Campus Environmental
Promotion Activities**





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NSS UNIT NO A-122
A.Y. 2021-22

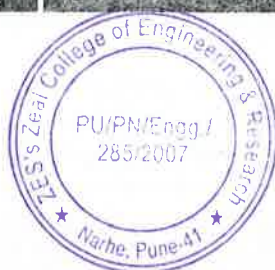


7. Report on "Swaminarayan Tekadi Conservation"

Date and venue: throughout year at Swaminarayan Tekadi

NSS Unit of Zeal College is amongst one of the active unit in SPPU. We always try to work for mother earth. To accomplish this we planned a tree conservation activity of existing forest area around Swaminarayan tekadi in Narhe. Around 3000 trees are already planted in this area by social worker team (Including Zeal College NSS Unit). We planned schedule on every Tuesday, Friday and Sunday which includes group of 10-20 students to work for tress conservation. Details are tabulated below,

Sr	Date	Involved Students	Sr	Date	Involved Students
1	21/11/2021	35	15	17/4/2022	22
2	27/11/2021	15	16	20/4/2022	28
3	12/12/2021	08	17	24/4/2022	10
4	19/12/2021	12	18	29/4/2022	06
5	26/12/2021	09	19	1/5/2022	08
6	16/01/2022	08	20	5/5/2022	35
7	13/02/2022	10	21	8/5/2022	20
8	13/03/2022	12	22	10/5/2022	22
9	27/3/2022	16	23	13/5/2022	21
10	09/04/2022	09	24	15/5/2022	15
11	10/04/2022	08	25	17/5/2022	14
12	12/04/2022	12	26	22/5/2022	12
13	13/04/2022	18	27	29/5/2022	10
14	15/4/2022	19	28		





**ZEAL EDUCATION SOCIETY'S
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NSS UNIT NO A-122
A.Y. 2021-22**



4. Report on "E-Waste Collection"

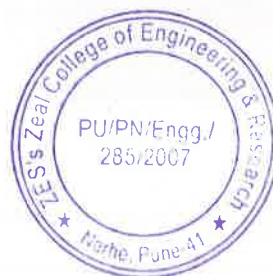
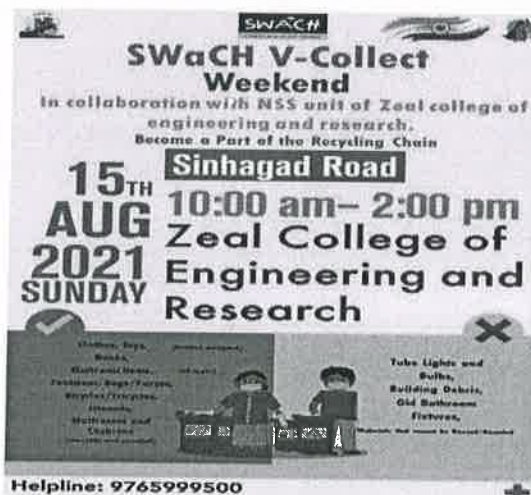
Date and venue: 12/8/2021 to 15/8/2021 at Narhe.

ZEAL NSS unit (A-122) which is one of the most active units in SPPU came forward with a new event with a new concept which is E-Waste Collection Drive in Association with "SWaCH". SWaCH is a collective of self employed waste-pickers that provide waste collection and management services. It is authorized by the Pune Municipal Corporation. E-Waste contains mercury, nickel, cadmium, cobalt amongst other dangerous chemicals and metals which pollute the environment and harm people if disposed of unscientifically.

This collection drive was conducted in two parts 1) Collection of E-waste from college students 2) Collection of E waste from nearby areas of Zeal College. One staff from SWaCH, NSS PO and 8 volunteers worked together for completion of event. We thank our college for providing this opportunity.

Collected E-waste –

- 1) Waste Chargers and data cables 2) Waste batteries 3) one Waste TV set





**ZEAL EDUCATION SOCIETY'S
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NSS UNIT NO A-122
A.Y. 2019-20**



2. Report on "Dindi Jejuri" Event

Date and venue: 2/7/2019, Jejuri

The Savitribai Phule was organized in Jejuri in collaboration with the National Service Scheme of Pune University and Sharad Chandrajai Pawar College. On June 30, 2019 and July 1, 2019, Zeal Engineering College National Service Scheme Program Officer Rohit Bulate and Kunal Joshi and student volunteers participated actively for the program for Clean Wari - Healthy Wari - Nirmal Wari - Harit Wari. At this time distribution of leaflets (1.5 lac) to Warkaris and collection, plantation, sanitation programs, health camps, cleaning of lintels, awareness programs was successfully implemented.

Snapshots of Event as below:-





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NSS UNIT NO A-122
A.Y. 2019-20

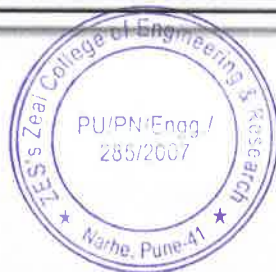
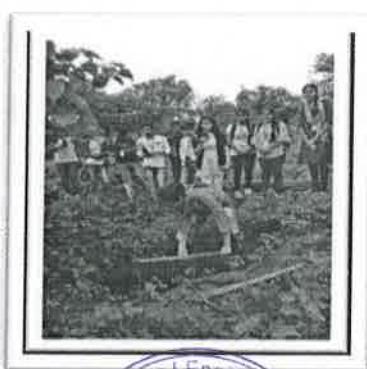
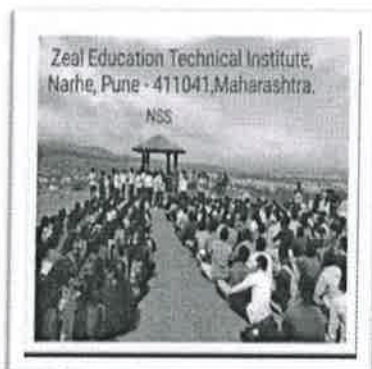


3. Report on "Tree Plantation and Conservation Activity" Event

Date and venue: 17/8/2019, Narhe Pune

National Service Scheme (NSS) of Zeal college of Engineering and Research and First Year Department of College organized this Mega event of "Tree Plantation and Conservation" along with "Morning walkers Club", Pune dated 17th August 2019. Students of Engineering science department and college NSS team along with Staff members played very vital role for successful completion of activity. This activity is located at Hill area nearer to Swami Narayan Temple in Narhe.

Program completed in three sessions. In first session Dr Ahir and Mr. Bobade of Morning walkers Club motivated students counseled them about importance of event. Second session was for cleaning of tree passage and gardening and lastly about plantation of about 350 trees has been completed. Breakfast is provided to students during activity. Dr.P.A Thakre and Dr. Y.S. Sonawane from engineering science department along with Prof. Akshay Karande (PO) were present for event.





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NSS UNIT NO A-122
A.Y. 2019-20**





4. Report on "Road Safety Awareness" Event

Date and venue: 23/09/2019, Seminar Hall B510, ZCOER

National Service Scheme (NSS) unit of Zeal college of Engineering and Police Commissioner Office, Traffic Department, Pune City organized this event of "Road Safety Awareness Program" dated 23th Sept. 2019. Students of Mechanical Engineering department and college NSS team along with Staff members played very vital role for successful completion of activity. This activity is conducted at Seminar hall, Mechanical Department, ZCOER, Pune. Around 150 students including NSS volunteer were present for event.

Program completed in two sessions. First session consist of felicitation of guest by Dr. Ajit Kate, Principal, ZCOER was done. Total eight guest including Mr. Ashok Hule, Mr. Raffiq Shaikh (All from Traffic Department) were felicitated. In second Mr. Rajesh Puranik, Police inspector, Traffic Branch, guided students and counseled them about importance of road safety. Students were really motivated and changed there perspective about road safety due to this presentation by guest. Some Images of Events has been shared below. Prof Chandangole Gopal and Prof Ekta Mehta along with Prof Akshay Karande were worked for successful completion of event.



 **MORAYA BLOOD BANK** 

Manikraj Bahu-Uddeshiya Samajsevi Sanstha,
FDA. Lic.No. PD/86
N.B.Engineers, Plot No. SE/1/1-1, D-II Block, MIDC, Near Mohan Nagar,
Chinchwad, Pune - 411019. Ph.No.(020) 27462000

Certificate

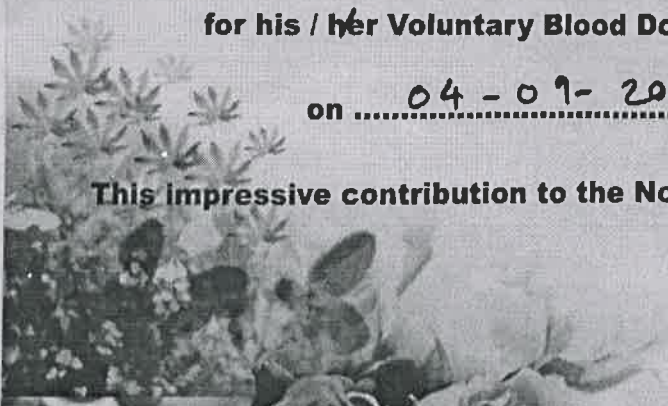

This certificate has been awarded to

Mr. / Mrs. / Ms. Mose Pawan

for his / her Voluntary Blood Donation to this Blood Bank

on 04-09-2018

This impressive contribution to the Noble cause is highly appreciated.

 
Blood Transfusion Officer
Moraya Blood Bank,
Chinchwad, Pune - 411019

REDMI NOTE 6 PRO
MI DUAL CAMERA

Blood Donation on ZCOER: 04th September 2018

Swachhata Abhiyaan at ZCOER

02nd Oct2018

On 2 Oct 2018 National Service Scheme and student welfare unit of Zeal College of Engineering & Research had conducted **Swachhata Abhiyaan** event on zeal education society's Narhe campus. The Campus cleaning work was started around at 10:30 am. All NSS students and faculty members with Principal Dr.



A.M.Kate, Campus Director Dr.S.A.Deokar and All Department to carry out the event. This task was completed under the guidance of NSS officer Prof.R.R.Bukate. The task was successfully finished around 1:30 pm. Principal of ZCOER & other senior Faculty members appreciate our work. Our NSS officer shares some valuable points on Swachhata Abhiyaan after this discussion event is concluded.



Swachhta Abhiyaan at ZCOER: 02nd Oct 2018





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National Service Scheme (NSS)

राष्ट्रीय सेवा योजना




Date: 20/09/2017.


Report on Mega Tree Plantation at Sinhgad Fort

On 7th July 2017, NSS Unit of Zeal College of Engineering and Research, Narhe, Pune organized Tree plantation activity in association with Maharashtra Green Army-Forest Department, Government of Maharashtra. Around 2000 trees were successfully planted by 100 NSS volunteers in Sinhgad fort area. Prof A.R. Suryawanshi (SWO Zeal College) and Prof Y.S. Sonawane (NSS PO) was planned this event.

We are thankful to college authorities for providing this opportunity.




**ZEAL EDUCATION SOCIETY
CELEBRATING
20 YEARS OF EDUCATIONAL EXCELLENCE**
Founder: Hon. Mr. B. M. Katkar



ZEAL COLLEGE OF ENGINEERING AND RESEARCH, PUNE

MEGA TREE PLANTATION

On 7th July 2017 – Near Sinhgad Fort





In association with

Maharashtra Green Army
Forest Department, Government of Maharashtra

Organized by

**Department of Students' Development
&
National Service Scheme**

Staff Coordinators : Prof. Suryawanshi A. R.
(SVO)

Student Coordinators : Mr. Niraj Jadhav

Dr. Sonawane Y. S.
(NSS PO)

Mr. Pravin Patil



Yours truly,

Dr. Y. S. Sonawane

NSS Officer, ZCOER





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National Service Scheme (NSS)

राष्ट्रीय सेवा योजना



Date: 15/08/2017.

Report on Swach Bharat Abhiyan

On 15th August 2017, NSS Unit of Zeal College of Engineering and Research, Narhe Pune organized 'Swach Bharat Abhiyan' from Zeal College Gate to Narhe Chouk. 60 Volunteers from Zeal NSS unit were present for event.

NSS unit Zeal College thanks Prof. Yogesh Sonawane and Dr. Ajit Kate for providing opportunity to organize this event.



Yours truly,

Dr. Y. S. Sonawane

NSS Officer, ZCOER