

# **SBSI 2022 FINAL PROJECT REPORT**



## **SWACHH BHARAT SUMMER INTERNSHIP**

**Submitted by**

**Rohit kumar Mahato (L)  
Prajyot Sangodkar  
Sanjana Palyekar  
Shivnath Sangodkar  
Vijaykumar Salunke  
Prashant Gowda**

**Under guidance of**

**Mr. Brandon Fernandes**  
*School of Physical and Applied Sciences*  
*Goa University*  
**2021-2022**

## DECLARATION

We have carried out the SBSI Internship (2021-2022)  
under the guidance of –

**Mr. Brandon Fernandes**

***School of Physical and Applied Sciences***

***Goa University***

The contents of this report are original and the 100 hours  
of work carried out by us during this internship are  
reported.

<b>Roll No.</b>	<b>Name of the Interns</b>	<b>Signature</b>
21P036011	Rohit kumar Mahato	
21P036008	Prajyot Sangodkar	
21P036012	Shivnath Sangodkar	
21P036007	Sanjana Palyekar	
21P036016	VijayKumar Salunke	
21P036003	Prashant Gowda	

# CERTIFICATE

This is to certify that the following SBSI 2020 Interns –

1. Rohit Kumar Mahato	<i>RollNo:-21P036011</i>
2. Prajyot Sangodkar	<i>RollNo:-21P036008</i>
3. Shivnath Sangodkar	<i>RollNo:-21P036012</i>
4. Sanjana Palyekar	<i>RollNo:-21P036007</i>
5. Vijaykumar Salunke	<i>RollNo:-21P036016</i>
6. Prashant Gowda	<i>RollNo:-21P036003</i>

have satisfactorily completed 100 hours of activities related to Swachh Bharat summer Internship program.

During this internship period we worked on energy management from the following topics.

- 1. Waste Management*
- 2. Energy Management*
- 3. Time Management*
- 4. Resource Management*
- 5. Creativity*

**Mr. Brandon Fernandes**  
(SBSI Mentor)

**Dr. Pranav P. Naik**  
(SBSI Coordinator)

## **ACKNOWLEDGEMENT**

Expressing acknowledgement is a difficult task and it is impossible to do justice with all those who were the part of this project. We would like to express our sincere gratitude towards all those who provided us guidance, support, inspiration throughout the course of this project and we are deeply indebted to all of them.

We wish to express our sincere gratitude to our project guide Mr. Brandon Fernandes for his valuable guidance.

We would like to thank our Programme Director Dr. Jivan Parab to allow us to make full use of the available facilities.

## **CONTENTS**

1. Survey on Usage and Conservation of Electricity.....(20hrs)
2. Survey of electricity office and storeroom.....(10 hrs)
3. Questionnaires.....(10 hrs)
- 4.Awareness through video on save energy.....(20 hrs )
- 5.Poster making.....(10 hrs)
- 6.Project to solve problems.....(20hrs)
- 7.Suggestions.....(10 hrs)

# INTRODUCTION

The Government has launched a nationwide Swachh Bharat Summer Internship (SBSI) program. It is encouraged by the Prime Minister of India where an option of 100 hours of Swachhata practice could be implemented and recorded by individuals or groups (as a team).

While this program has been made specially to encourage students and members of youth clubs to be more proactive in Swachhata related programs; it is also open to NGOs to take the initiative to join. <https://sbsi.mygov.in/>

This is in line with the Prime Minister Narendra Modi's call on October 2, 2014 for each individual to devote 100 hours to Swachhata through the year.

The programme is expected to not only provide a great learning experience to students but hopes to further implement the existing measures undertaken by the government in ensuring a clean and healthy India.

This Internship Program Aims to –

- Develop their skills and orientation for sanitation related work.
- Bring youth across the country an opportunity to make a significant contribution to the Swachhata revolution.
- Integrate youth in the community service in rural areas in the run up to the 150<sup>th</sup> birth anniversary of Mahatma Gandhi.

“Devote the 100 hours every year towards the cause of cleanliness”

“Jan Jan Ka Nara Hai, Bharat Ko Swachh Banana Hai”

Being a youth and active citizen of this country, it is a good opportunity for us to lend a helping hand to our nation.

## **Survey on Usage and Conservation of Electricity:-**

For doing survey, we have gone through different surveys done by the other universities of India. We took the ideas from those surveys and prepared a questioner.



## **Survey of electricity office and storeroom:-**

For the survey purpose we visited chemistry and Electricity block of Goa university. There we met “Electrician Mr.Krishna” who provided us information regarding our survey questions.



We also visited chemistry block for better understanding of quantity of electronic devices present in the building. While doing the survey we met HOD of chemistry block and had a conversation with him. He gave us nice suggestion regarding energy management. Which we then mentioned in our presentation and also suggested to the Electricity Department of Goa university.

## Visited Electricity Department And other places of Goa University



### Questionnaires:-



While preparing questioner we came across many questions to make a survey on. But we have to keep it as short as possible because of lack of time. And also need to take care of important question.

So we selected this questions.

1. How many fans, tubelight, incandescent bulb are installed in your building?
2. How many Computers, Photocopiers, TV, Projectors are installed in your building?
3. How many air conditioner, Refrigerator are installed in your building?
4. How many water cooler, water pump are installed in your building?
5. How many centrifugal machines, exhaust fans are installed in your building?



### Answers of the Questionnaires

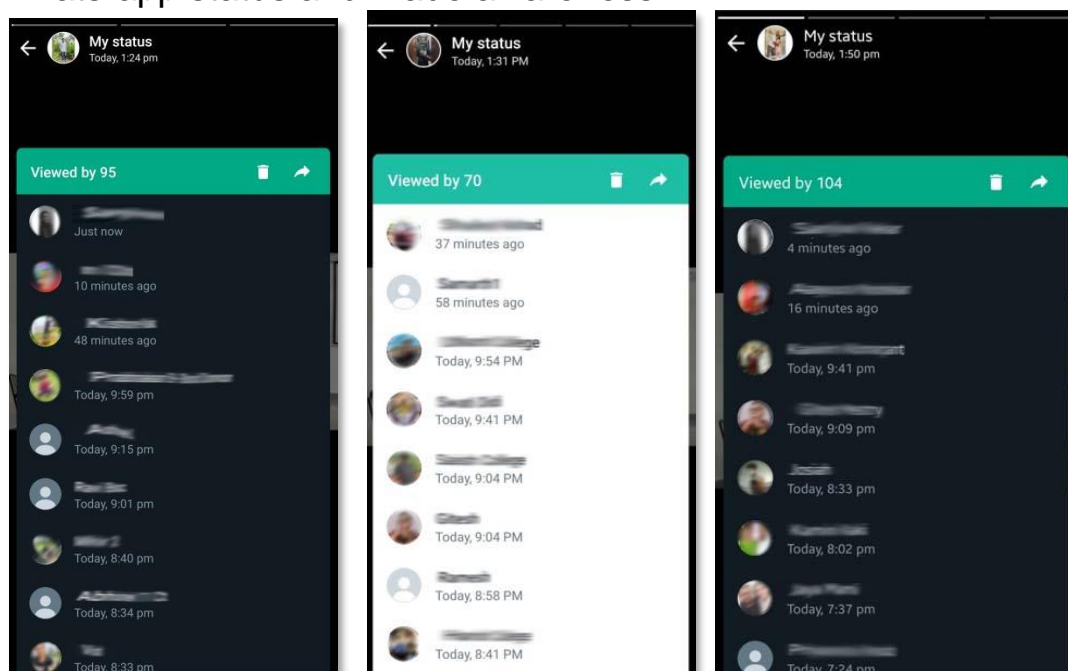
Sr.No	Load	Unit(watts)	No.	Total Watts
1	CFL Bulbs	18	1444	25992
2	Tube-lights	36	15	540
3	Water cooler	850	5	4250
4	Ceiling fan	80	221	17680
5	AC	1.5T	96	144T
6	LCD Projector	800	6	4800
7	Refrigerator	100	13	1300
8	Exhaust fans	80	53	4240
9	Oven	1500	8	1200
10	Analytical balance	200	6	1200

## Important note

- The total amount of Electricity Bill for Chemical Science Building comes to around rupees 6.7 lakhs per month.
- Using solar panels we are saving approximately rupees 2 lakhs per month.
- Total amount of Electricity bill comes to around rupees 4.7 lakhs per month.

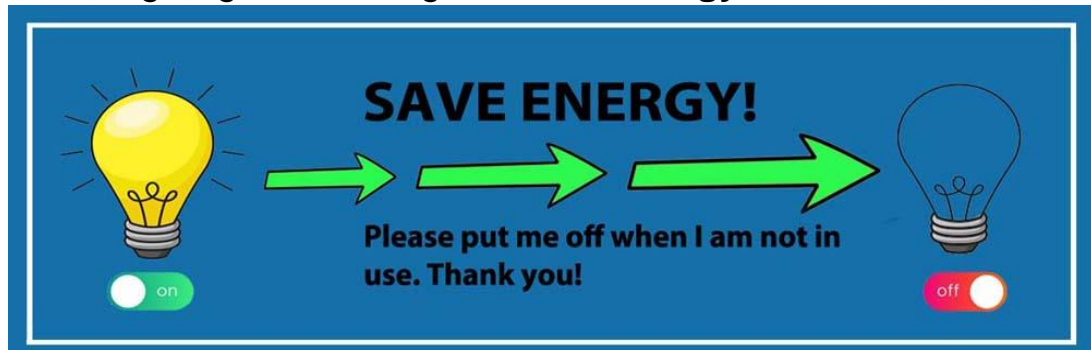
## Awareness through video on save Energy:-

Due to lack of time It was not possible for us to do awareness on ground level. So we decided to do it in online mode. We made a short video giving a message of “save energy” and share it using a whats-app status and made awareness.

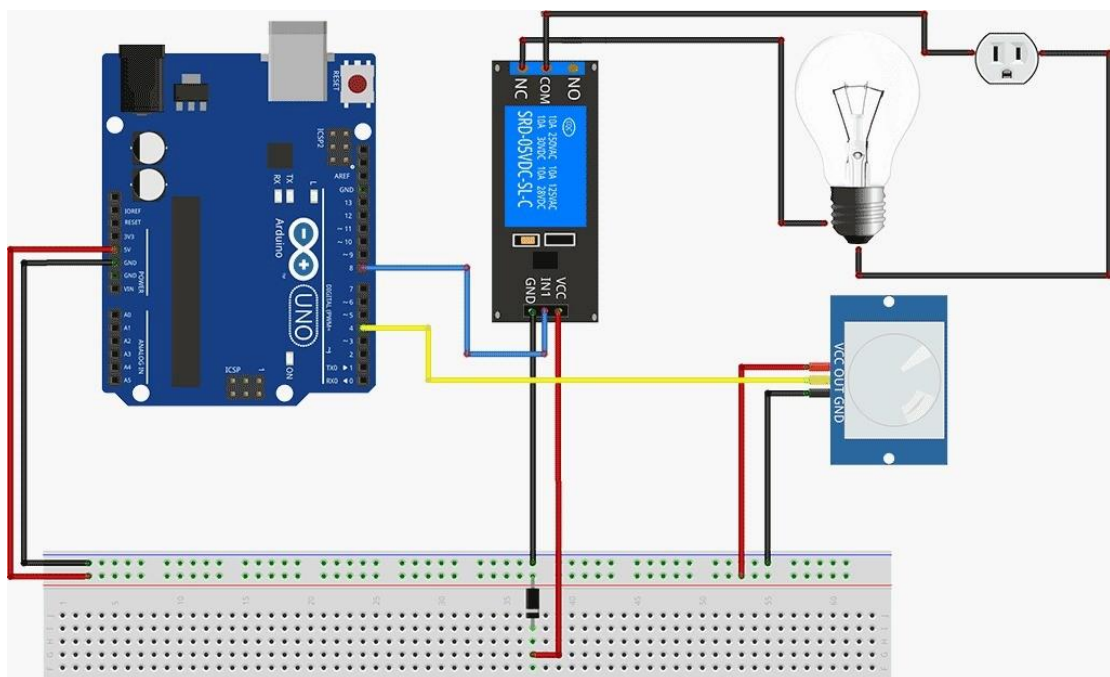


## Poster Making:-

Poster was made to put on the walls where there are switch boards, giving the message of **save energy**



## Project Idea:



## Project Details:

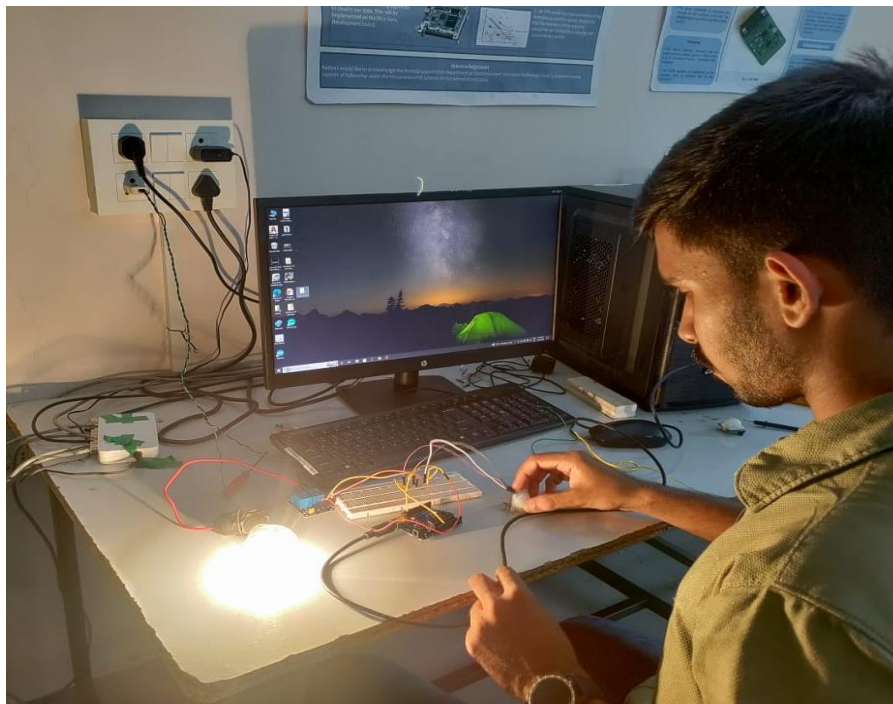
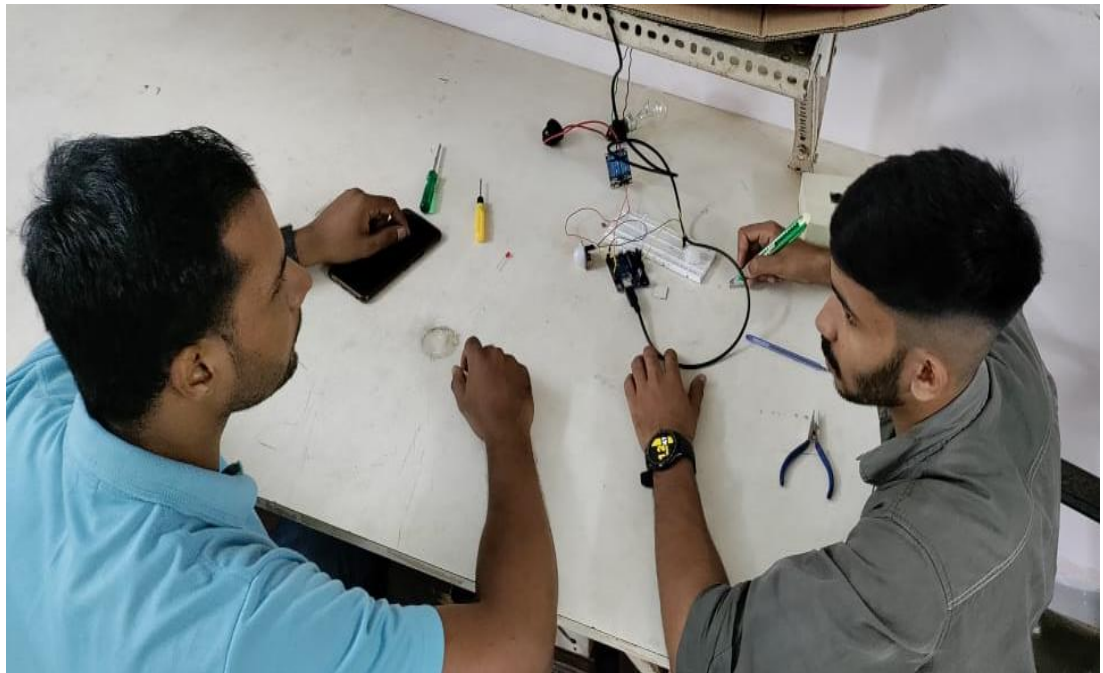
Components required:

- Arduino board
- Relay
- PIR sensor
- Load
- Connecting wire

Overall cost of modal Rs 1000

## Working of the Project:

- In this Project Idea we will be using PIR sensor to detect the presence of Human in a room.
- Here the PIR sensor will detect the Human motion in room and Turn ON the light else it will turn OFF the light.
- This can be used in classrooms, labs etc.



### **Suggestions:**

1. Tubelight could be replaced by LED tubes.
2. Installation of Solar panels.
3. Use natural light where possible.
4. Use of creative posters to remind student and staff to save energy.
5. Give task to one student daily to unplug inactive devices overnight.(eg. computers etc..).
6. Moral education.
7. Master switch out side every classroom.

### **Note:-**

*Suggestion are also given to Electricity Department and we hope they will take necessary action.*

## **TAKEAWAYS OF THE INTERNS FROM SBSI**

It was a joyful experience for all of us. we have got a wonderful experience and has changed our perspective of Energy management. It feels great that we are a part of this SBSI program and contributing few hours to make awareness in our society . This participation will surely help us in future.

SBSI course taught us how to do team work and manage time.

Activities performed under this course encouraged us to take certain steps to keep to save energy for future generation

It also taught us how to communicate with others ,write report and present our work.

We are thankful for guidance and help provided by supervisor, also we learned many things from our supervisor and are satisfied with our work.

## **Special Thanks to:**

- Dr. Marlon Sequeira
- Dr. Pranav Naik
- Mr. Vishant Malik