



**SHRI RAMDEOBABA COLLEGE OF ENGINEERING  
AND MANAGEMENT, NAGPUR**



**NATIONAL SERVICE SCHEME**

**RCOEM UNIT**

**SWACHH BHARAT SUMMER INTERNSHIP  
REPORT**

**(2019)**

Dr. Amit Anurag

NSS Program Officer.

Dr. R.S. Pande

Principal, RCOEM

## Members of the Internship

Sr.no	Name of NSS Volunteer
1.	Varun Tiwari
2.	Disha Agrawal
3.	Aashutosh Sharma
4.	Khushali Borikar
5.	Shivani Monal
6.	Aishwarya Mahajan
7.	Aayushi Mohata
8.	Nayan Karwa
9.	Sejal Bajaj
10.	Rohit Baheti
11.	Ishaan Gupta
12.	Niket Jain
13.	Parag Uchbagle
14.	Dishank Khandelwal
15.	Vipul Khivansara
16.	Darshan Rathi
17.	Aishwarya Agrawal
18.	Abhijeet Jha
19.	Shivani Bishnani
20.	Priyanka Jora
21.	Vanisha Chawla
22.	Tejaswi Rathi
23.	Parineeta Fating
24.	Vaishnavi Lahoti
25.	Yash Manoj Soni
26.	Piyush Bhartiya
27.	Navin Rathi

## Schedule of 50 Hrs. Program

<b>Sr. No</b>	<b>EVENT</b>	<b>DATE</b>	<b>Time</b>	<b>Total</b>
1.	Introduction to Swachh Bharat Internship			
2.	Interaction with Sarpanch	26/07/2019	1 hrs	1 hrs
3.	Awareness:	26/07/2019 to 29/07/2019	3 hrs/day	12 hrs
	a) Water Management.			
	b) Waste Disposal.			
4.	Nukkad Natak	26/07/2019 to 29/07/2019	2 hrs/day	8 hrs
5.	Cleanliness Drive A	26/07/2019 to 27/07/2019	2 hrs/day	4 hrs
6.	Wall Painting	27/07/2019	3 hrs	3hrs
7.	Degradable And Bio-degradable	27/07/2019	3hrs	3 hrs
8.	Awareness Through Fun	27/07/2019 to 28/07/2019	1hrs/day	3 hrs
9.	Paper Bags Making	27/07/2019	3 hrs	3 hrs
10.	Cleanliness Drive B	28/07/2019 to 29/07/2019	2 hrs/day	4 hrs
11.	Vermi-Compost	28/07/2019	2 hrs	2 hrs
12.	Soak-Pit	28/07/2019	2 hrs	2 hrs
13.	Importance of Toilet	26/07/2019 to 27/07/2019	1 hrs /day	2 hrs
14.	Female Sanitization	28/07/2019 to 29/07/2019	1 hrs /day	2 hrs
15.	Felicitation	29/07/2019	1 hrs	1 hrs



**SWACHH BHARAT SUMMER INTERNSHIP TEAM**

## INTRODUCTION TO SWACHH BHARAT INTERNSHIP

In accordance to the swachh bharat summer internship, we introduce villagers about swachh bharat abhiyaan.

In India for the period 2014 to 2019 that aims to clean up the streets, roads and infrastructure of India's cities, towns, and rural areas. The campaign's official name is in Hindi and translates to "Clean India Mission" in English. The objectives of Swachh Bharat include eliminating open defecation through the construction of household-owned and community-owned toilets and establishing an accountable mechanism of monitoring toilet use. Run by the Government of India, the mission aims to achieve an "open-defecation free" (ODF) India by 2 October 2019, the 150th anniversary of the birth of Mahatma Gandhi, by constructing 90 million toilets in rural India. The campaign was officially launched on 2 October 2014 at Rajghat, New Delhi by Prime Minister Narendra Modi. It is India's largest cleanliness drive to date with three million government employees and students from all parts of India participating in 4,043 cities, towns, and rural areas. PM Modi has called the campaign *Satyagrah se Swachhagrah* in reference to Gandhi's *Champaran Satyagraha* launched on 10 April 1917.



## **DAY 1 (26/8/19)**

### **INTERACTION WITH SARPANCH**

As sarpanch was not present so we talked to subordinate, her name was Shilpa Sawarkar. She said their village has adopted development schemes very nicely. Whenever SARPANCH gets to know some new schemes she tries to implement it. In education sector there is much development since before. students were less in no. in school but today scenario has changed, many children get enrolled in schools. In total there are 241 families. In them some family are well employed while some are some families are in need. By Gharkul Yojana these needy families can get benefited. There are approx. 30-40 houses not having toilets. Problem is many homes have ground soil containing big boulders which can break in an instant by on JCB. So we get to know all this things from sarpanch.



### **AWARENESS**

# **1. WATER MANAGEMENT:**

Water management is the management of water resources under set policies and regulations. Water, once an abundant natural resource, is becoming a more valuable commodity due to droughts and overuse. Water resource management is a very important issue from several angles such as development of water bodies for future, protection of available water bodies from pollution and over exploitation and to prevent disputes.

## **ACTIVITY:**

As we went for Discussions with the Village people we came to know various problems about the water that they were facing like:

- 1.Shortage of water
- 2.Pollution of water
- 3.Wastage of water
- 4.Disease due to polluted water

As per the discussion the village peoples are getting drinking water after 3-4 days in summer. Many of the people throw their waste in lake example plastic bottle. The water which is use in agriculture mostly overuse. Due to the contamination of the water many disease are spreading in the village this are the serious issue that needs a proper way for solution

## **Solution to Water Problem:-**

Some old tried and true methods are being brought back such as harvesting, transporting and storing rain water. Raised ridges up to 10 meters wide are alternated with shallow canals to channel water, either harvested rain or deviated river water. This not only helps to water crops but also stores heat and keeps the fields warm on cold nights. Reusing and recycling water is a solution.

## 2. WASTE DISPOSAL:

Removing and destroying or storing damaged ,used or other unwanted domestic agricultural or industrial product and substance .Disposal include burning ,burial at landfill sites or at sea, and recycling. Disposal of waste has huge environmental impact and can cause serious problems.

### ACTIVITY:

On date we went to one village near Nagpur about 30kms.Firstly NSS unit went to all the houses and told them about the importance of waste disposal and after that acknowledged them about the different type of disposal like wet and wet type. After that the NSS unit went to the government school of that village and told the students about the awareness and about proper waste disposal.

By mean of games we told the students and other people about the different type of disposal.





## NUKAD NATAK

**Nukad natak** for awareness about cleanliness was performed for that announcement was made, volunteers went to each home and informed about the play. They almost covered the whole village and it was fun while doing so, talking to people and seeing how actually the environment of village was. It was an amazing



experience. Our volunteers also involved children of village to take part in announcement. Then we started preparing for the play (small). Our volunteers took active participation in it, then the play was prepared. Whole village assembled to see the act. Play involved small acts related to **cleanliness**, short slogans and sayings. There was one act in which a woman used to throw garbage in the backyard of the other villager and when she used to come back, she gets to know that other people

threw even more garbage in her backyard.

All the volunteer cheered loudly

**As you sow so shall you reap.** After many small acts and performance the play ended with an information block by Darshan Rathi on cleanliness. Another act of cleanliness was performed where a student was facilitated with an award. A Villager came to enquiry what for he was awarded. He stood first all over the district he said but, after that an act by him put a

villager in when he tore the wrapper and threw it on the road instead of putting it in the dustbin. Then the villager ask why did you do so, so he said it's not my duty to keep village clean, the duty is of government then in chores all people said it's not the duty of government it is our duty to keep our surrounding clean and neat. So that we don't get infection our health don't get spoiled in it.



## CLEANLINESS DRIVE (A)



Cleanliness Drive DAY-1 Cleanliness drive started at 6:00p.m. . So, the place where the drive was to be conducted was in the passage near to school. The passage was littered with plastic wrappers, waste wet cardboard boxes, waste and torn of clothes, glass bottles, dry leaves, bangles, thermocol pieces, etc. So, it was our first time experience of cleanliness drive where we were going to learn and experience why there is a need of cleanliness in our surroundings. We started our drive by first wearing our safety equipment like gloves. Then by taking the other equipment for collecting the waste we used broom, collecting pan, dustbin bag. We begin by collecting the big waste which can be collected easily by hands, then the small wrappers and dry leaves we collected it by the use of broom and collecting pan. All the waste was being collected in the dustbin bag. We also collected the dead plants which were at the side of the walls. While picking up the broken glass pieces we need to be very careful. If at all the glass contains some infection and we get a wound by broken glass then we need to have a first aid for it. All the waste was collected in the bag. Figure 1: BEFORE CLEANLINESS DRIVE Figure 2: AFTER CLEANLINESS DRIVE The drive was conducted successfully and it was a great experience by doing the cleanliness work. Although it is a hard work but after having the place cleaned it was a very happy moment. And we must never judge any kind of work, every work we do requires hard work as well as smart work. So we learnt that to stay healthy and to have a good environment we need to have cleanliness all

around the surroundings, and it is our responsibility to keep our surroundings clean and hygienic.

*Figure 1: BEFORE CLEANLINESS DRIVE*

*Figure 2: AFTER CLEANLINESS DRIVE*



## **DAY 2 (27/8/19)**

### **WALL PAINTING**

It all started by entering the school premises and introducing ourselves with the children and the teacher. We communicated with those children and asked them “what you know about waste segregation?”. And we found that most of them are unaware about this. As our objective is to make them well- aware about waste segregation, we informed them about this. To make them understand this better, we arranged games regarding this, the students actively participated in games & discussion.

We also made wall-painting related to waste management. Our objective was to select the wall, which is easily caught by the eyes of the students so that it will make them aware of those things on daily-basis.



We have to make a painting which is indicating Waste segregation. “Waste segregation” means dividing **waste** into **dry** and **wet**. **Dry waste** includes wood and related products, metals and glass. **Wet waste** typically refers to organic **waste** usually generated by eating establishments and are heavy in weight due to dampness. We made the painting, with context their local language and also added an inspirational slogan, ” **Swachhta Sarwancha Adhikaar**”. In this way, we have completed the objective of creating awareness among the young-ones.

# DEGRADABLE AND NON-BIODEGRADABLE

## **Awareness about bio-degradable and non-bio-degradable waste:-**



Our team has visited children of the village along with their parents at primary school of the village. We aware them about how to differentiate in between bio-degradable and non-bio-degradable waste. How much plastic waste is harmful for environment as it takes 1000 years to decompose, how to sort their daily waste in bio-degradable and non-bio-degradable. Biodegradable substances are those that degrades or break down naturally. Non-biodegradable substances are those that do not degrade easily. These terms itself defines the ability of the substances which are degradable or not. Materials like plants, animals, their waste, paper, fruits, flowers, vegetables fall under biodegradable substances, on the other hand, rubber, plastic, chemicals, paint plastic falls under the category of the non-biodegradable items. The environment in which we live is surrounded by these two things only, even the materials we use in day to day life can be biodegradable or non-biodegradable. It is usually seen that non-biodegradable substances are synthesized and does not occur naturally, hence their degradation is also not possible, but the biodegradable substances get easily decompose in nature through agents like water, soil, sunlight, microorganisms, etc. and directly or indirectly are profitable to the environment, these biodegradable waste can be used in vermicompost plant so that they can make organic manure.

## **AWARENESS THROUGH FUN**

To increase the awareness of separation of dry and wet garbage. The blue and green dustbins are used to segregate two different kinds of waste, the green is meant for wet wastes while the blue one is for dry waste. When mixed together, they are a trouble to deal with, so the idea of waste segregation at source (i.e. home and office) was promoted to ease the recycling process.

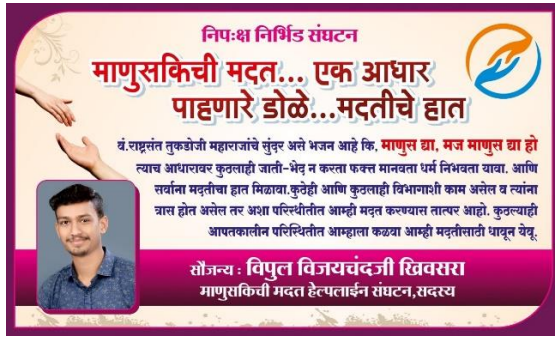
In green coloured dustbins we throw biodegradable wastes and in blue coloured dustbins we throw non- biodegradable wastes.

### **Activity:-**

We need a blue and a green dustbins and mixed biodegradable and non-biodegradable wastes. To make it easier to remember just keep in mind that Green color is related to living beings such as plants and trees. Thus it means that we have to through 'Wet' trash in Green color bins and the remaining in Blue colour bins. We gave an activity to the students of that village. The activity was that they have to decide whether the garbage was wet or dry and they had to segregate accordingly and had to throw in that blue and green dustbins. After the completion of that activity the students who participated and came first, second and third were distributed gifts that is note books. With the help of this activity we taught the students that we should not mix the biodegradable and non-biodegradable wastes. In fact we should through the biodegradable waste in green and non-biodegradable in blue bins. Through this fun activity they all got to know and learn how to segregate the waste.

Having fun with the kids there, it was time to award them for their coordination. Students had been very cheerful and participated in the activities arranged by the NSS group.

***MANUSKICHI MADAT HELPLINE*** (Ner, Dist. Yavatmal) is an organization found by Vipul Khivasara, member of NSS. It is social group that works 24/7 to help poor people and sorts their problem. Its motto is “**Helping is self-satisfaction and not expecting anything in return, a volunteer act.**” Apart from this it does certain social services. It has undergone events like tree plantation, blood donation camps and many more.



These students were donated notebooks by this organization in order to encourage them. The delight on their faces was astonishing.

## PAPER BAGS MAKING

Of late, owing to the increased awareness of biologically non-disposable nature of the plastics bags, the plastic carry bags are being banned in many cities and urban centers. The disposal and recycling of plastic bags have created havoc and a threat to the environment. Suitable solution to come out of this difficulty is to replace, wherever possible, plastic bags with other bio-degradable materials such as paper bags, cotton bags, jute bags etc., considering the necessity to solve this problem there is an immediate demand for paper carry bags, which can be made in different sizes and thicknesses. Paper carry bags are used in all types of trade. Some of them are the following textile shops, bakeries, shoe shops, grocery shops, fancy shops, book shops, sweet shops, meat / fish shops, vegetable shops, stationery Shops, hardware shops, all departmental shops & consumer shops. Paper packaging is increasingly gaining importance due to pollution problem of using plastic carrier and packaging bags. Many state government in India and also Central Government have put ban on using certain type of plastic bags. Therefore the present trend is to use bio-degradable packaging products such as paper and products made from bio-degradable polymers. Paper is an eco-friendly product. It is made from natural raw materials and as an end product, paper is bio-degradable. Paper has no real competing product. Plastic this was rated as a substitute for paper has lost the race, being non bio-degradable.

## ACTIVITY:

We make paper carry bags from waste newspaper. In very short period of time we can make paper bags of any size which are durable, eco-friendly and if you want, can be decorated. We taught the students of village's school how to make paper bags from old newspaper which they will implement in their life in order to save environment from plastic pollution. They had fun in this activity as well as learn something new and interesting which is beneficial for future.



## CLEANLINESS DRIVE B

Clean environment is an indicator of progress of human being and with the motto of clean environment Government of India has initiated '*Swaccha Bharat Abhiyan*'. The NSS unit of **Shri Ramdeobaba College of Engineering and Management, Nagpur** has taken this opportunity and initiated cleanliness drive in and outside the college campus. As a part of regular NSS activities our NSS unit has organized cleanliness drive in the village and across its localities. Drive started at 5.00 p.m. in the evening.

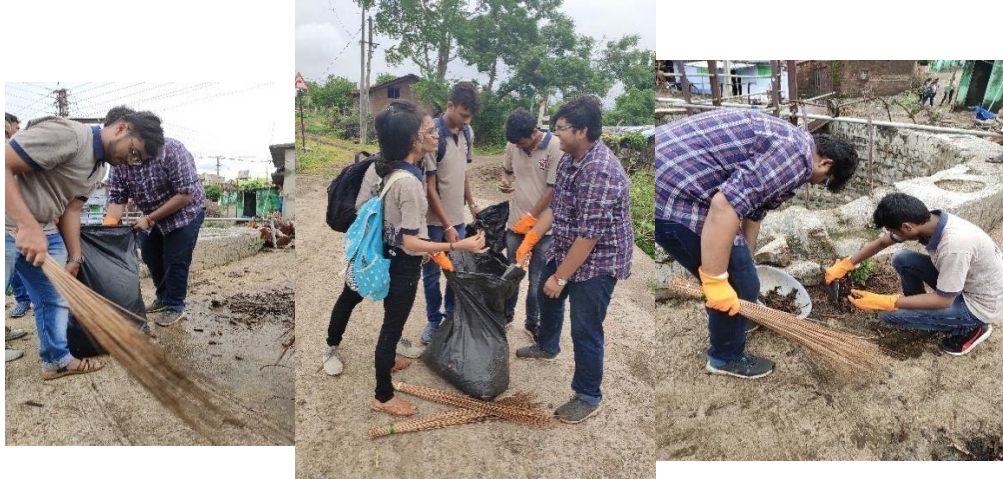




During this activity volunteers have cleaned the approach road, garbage filled roadsides and chopped the unwanted bushes along road side. They also removed the grass and weeds besides the divider and picked up the all plastic garbage from both sides of road. Total 26 volunteers have participated in this event. As a wise man once said “**Cleanliness is next to Godliness**” we began the drive.

Cleanliness drive was part of daily activities. The agenda of second drive was to clean road sides and area surrounding the well. Hygiene plays important role in cleanliness and so important measures were taken prior the drive. Each volunteer has worn the safety gloves. Garbage disposal bags were carried in order to handle the waste properly.

Garbage was found that could be degraded too, so the garbage was divided as degradable and non-biodegradable wastes. Thereby supported the concept of dry waste and wet waste segregation.



Plenty of waste plastic and glass bottles were found on the sides of the road which were removed and dumped in dustbins. The area surrounding the well where the drive concluded had many scraps and plastic waste which was cleaned.

We were able to make people aware about the methods of cleanliness and proper waste management. People themselves were eager and came forward to help us.

Collected waste was properly disposed and by 7.30 p.m. the drive came to an end.

## **DAY 3 (28/7/19)**

### **VERMI-COMPOST**

The work on the project was initiated on 28 July 2019. It took around 6 hrs for the completion of project. Vermicomposting is the most promising a high-value bio-fertilizer which not only increases the plant growth and productivity by nutrient supply but also is cost-effective and pollution free. Use of vermi compost promotes soil aggregation and stabilizes soil structure. This improves the air-water relationship of soil, thus increasing the water retention capacity and encourages the extensive development of root system of plants. It is observed that the mineralization of nutrients is enhanced and it results in boosting up of crop productivity. This project can be a better option for the Campus Sustainability Plan to achieve Zero Waste Campus Policy and preserve university land. In addition, this project can also be employed for educational purposes and other outreach programmes.”

The program introduced an awareness among the people about how to setup vermicompost.

#### **Procedure**

1. To prepare a compost, either a plastic or a concrete tank can be used. The size of the tank depends upon the availability of raw materials.
2. Collect the weed biomass and place them under the sun for about 8-12 days. Now chop them to the required smaller size using the cutter.
3. Prepare a cow dung slurry and sprinkle it on the heap for quick decomposition.
4. Add a layer (2 – 3 inch) of soil or sand at the bottom of the tank. Now prepare a fine bedding by adding partially decomposed cow dung, dried leaves and other biodegradable wastes collected from fields and kitchen. Distribute evenly on the sand layer.
5. Continue adding both the chopped bio-waste and partially decomposed cow dung layer-wise into the tank up to a depth of 0.5-1.0 ft.
6. Once, after adding all the bio-wastes, release the earthworm species over the mixture and cover the compost mixture with dry straw or gunny bags.
7. Sprinkle water on the regular basis to maintain the moisture content of the compost.

8. Cover the tank with a thatch roof to prevent the entry of ants, lizards, mouse, snakes, etc. and protect the compost from rainwater and direct sunshine.
9. Have a frequent check to avoid the compost from overheating. Maintain a proper moisture and temperature by turnings and subsequent staking.

Advantages for the same was also given in the program. The main benefits of Vermin composting are:

1. Develops root growth of plants.
2. Improves the physical structure of the soil.
3. Enhances the soil quality with microorganisms.
4. Increases the fertility and water resisting in the soil.
5. Helps with germination, plant growth, and crop yield.
6. Nurtures soil with plant growth hormones such as auxins, gibberellic acid, etc.

At last after completion of project doubts among people were cleared. Help was also provided to the people who were willing to setup the project.



## **SOAK PIT**

Soak pit project was started on 28 July at 2pm. The people were given a complete demo on soak pit project. A Soak Pit is a covered, porous-walled chamber that allows water to slowly soak into the ground. Pre-settled effluent from septic tank is discharged to the underground chamber from where it infiltrates into the surrounding soil.

### **Design**

A layer of sand and fine gravel is spread across the bottom to help disperse the flow. Depth should be between 1.5 and 4m deep, but never less than 1.5m above the ground water table. The Soak Pit is filled with coarse rocks and gravel. The rocks and gravel will prevent the walls from collapsing, but will still provide adequate space for the waste-water.

### **Working**

As waste-water percolates through the soil from the soak pit, small particles are filtered out by the soil matrix and organics are digested by micro-organism. Soak pit are best suited to soils with good absorptive properties; clay, hard packed or rocky soils are not appropriate.

### **Adequacy**

A Soak Pit does not provide adequate treatment for raw wastewater and the pit will clog quickly. A Soak Pit should be used for discharging pre settled black water or grey water.

### **Maintenance**

- the effluent should be clarified or filtered well to prevent excessive build-up of solids.
- The Soak Pit should be kept away from high-traffic areas.
- Particles and biomass will clog the pit so need to be cleaned or moved.
- for future access a removable lid should be used to seal the pit.

## **Advantages**

- Can be built and repaired with locally available materials.
- Small land area required.
- Power conservative.
- Can be built and maintained with locally available materials.
- Simple technique for all users.

## **Disadvantages**

- Pre-treatment is required to prevent clogging, although eventual clogging is inevitable.
- negatively affects soil and groundwater properties.

All above detail are shown and explain by a small soak pit model as well as working principle of model told to villagers and students



## DAY 4 (29/8/19)

### IMPORTANCE OF TOILET

Toilet use is essential to the survival and development of all children in India and around the world, as exposure to human waste causes diseases such as diarrhea. Every day, almost 400 children under five in India die from diarrhea linked to poor sanitation and hygiene.

#### ACTIVITY:

The importance of toilet was explained by the NSS unit .Lack of proper sanitation is a serious issue that is affecting most developing countries. The **importance** of hygienic **toilets** lies in an effort to prevent diseases which can be transmitted through human waste, which afflict both developed and developing countries. After inspecting all the houses we went to some houses where proper sanitation was not available, the importance of toilet was explained and many schemes were told .The initiative taken by government were explained and with the help

for  
NBA  
fund of  
11,100  
will be  
provided under the scheme was explained.





Why it was needed?

It was needed to this because there was lack of awareness among people and proper sanitation was missing .Many children

informed about the missing toilet facility in their house and they have to travel to the lake nearby for morning schedules.



## **FEMALE SANITIZATION**

Most of the women in the village used sanitary napkins when they were on their period. Only few were unaware of it. Our volunteers shared the benefits of using sanitary napkins, what might be the complications they will face if they don't use sanitary napkins. There were many women who had the knowledge of sanitary napkin and they were aware about it, and encouraged other women to use sanitary Napkins.





## FELICITATION

**VENUE: Sonkhamb**

**Date: 29/06/2019**

Undergoing number of activities on cleanliness in these four days, we had reached to our final event of felicitation. This event was specially organized for the villagers as well as the school members who had extended themselves to help and coordinated with us to the most.

The chief guest of the event was Mr Gourkhede, the Principal of the school. Other dignitaries present there were *Mrs Shilpa Sawarkartaai*, member of gram panchayat; Mrs. Pooja Rahate, teacher and others. As a token of gratitude they were felicitated.

Mr Gourkhede was felicitated by Miss Ayushi Mohata, Secretary. Mrs. Shilpa Sawarkar *taai* was felicitated by Miss Aishwarya Mahajan. All the teachers were felicitated by other students of NSS.

Amazingly, villagers were aware and they tried to bring about change. Thackrey family of the village had already taken initiative and had developed soak-pit structure in their farm. To support their initiative and inspire other villagers to take such filthy step Thackrey family too was felicitated.

Expressing the Gratitude to the villagers for such cooperation, we concluded our four days of “SWACHHA BHARAT INTERNSHIP”.



Shri Ramdeobaba College of Engineering & Management, Nagpur  
NSS UNIT RCOEM

Date: 23/07/2019

प्रति,  
मा.सरपंच,  
ग्रा.पं.सोनखांब

विषय: स्वच्छ भारत internship साठी आपल्या गावात internship करण्याची परवानगी मिळण्याबाबत

महोदय,

वरील विषयाला अनुसरून दिनांक २९/०७/१९ व २७/०७/१९ ला आपल्या गावात रामदेवबाबा अभियांत्रिकी महाद्यालयातील विद्यार्थ्यांना दोन दिवसांची internship करायची आहे. ही योजना केंद्र सरकारच्या वतीने राबवली जात आहे व आमच्या विद्यार्थ्यांना त्याकरिता solid waste management व information education and communication इत्यादी उपक्रम राबवायचे आहे.

तरी आम्हाला परवानगी द्यावी व सहकार्य करावे ही नम्र विनंती



सरपंच  
श्री.पं.सोनखांब  
पं.स.काटोब, वि.प.नागपूर



Dr. Amit Anurag  
NSS Program Officer