



Vivekanand Education Society's Institute of Technology

(Affiliated to University of Mumbai, Approved by AICTE & Recognized by Govt. of Maharashtra)

3.4 Extension Activities

3.4.1 Extension activities conducted in neighbourhood community to impact and sensitize students towards social issues and holistic development during the year.



उन्नत भारत अभियान
ग्रामीण विकास एवं प्रौद्योगिकी केंद्र
भारतीय प्रौद्योगिकी संस्थान, दिल्ली
होजख़ास, नयी दिल्ली- 110016



UNNAT BHARAT ABHIYAN
INDIAN INSTITUTE OF TECHNOLOGY, DELHI
National Coordinating Institution

Address: V-405, IIT Delhi Main Rd, Block 5, Hauz Khas, New Delhi, 110016
Tel: +91-11-2659 1121/1157, Fax: +91-11-2659 1121
Email: unnatbharatabhiyanitd@gmail.com

Date: October 18, 2022

To
Mrs. Manisha Joshi
Vivekanand Education Society's Institute of Technology, Chembur

Subject: Financial Sanction of Technical Intervention project (No. RP-03525G) under UBA 2.0

Dear Sir/Madam

1. This is to intimate you that Technology Intervention proposals under the category of "Technology Customization": Project-No: RP-03525G entitled, "Bio Toilet: An Ecological Initiative" submitted by you under the *Unnat Bharat Abhiyan 2.0 Program*, has been approved by Others SEG and funded by the National Coordinating Institute UBA 2.0 (IIT Delhi) against UTR No. : SBIN322207939391 vide dated 26/07/2022.
2. You can use the grant for fulfilling the project objectives under the approved heads as per the proposal, using the established procedure of your institute and as per the UBA guidelines, within 6 months from the date of receiving of funds. Kindly note that the utilization of funds allowed under the head "General Contingency" should not be more than 10% of the total sanctioned fund.

Note: TA/ Honorarium is strictly not permitted in this project.

3. Any product/service developed under the sanctioned project must have UBA logo on it.
4. Detailed information of faculty in-charge and students/volunteers, who will be coordinating/ working under the sanctioned project, shall be shared in the project report submitted by your institution.
5. The project implementation location/site shall be selected in consideration with gram panchayat officials/ members.
6. Please take care that the position holders/Panchayat officials shall not be benefited in person. Also, ensure that the project shall not be controversial in terms of beneficiaries. Selection of beneficiaries shall include the Marginalized communities or EWS Category as well.

7. Few videos and images shall be shared to the SEG Coordinator (for updating the status of the project), also the report shall contain good quality pictures of the project site/product/service and feedback from the villagers/beneficiaries.
8. For the projects related to training camps, awareness, rally etc., the in-charge shall share the material/posters/modules to be used in the villages, for the knowledge of SEG Coordinator and further comments, if any.

You are required to submit the completion report/5-6 photographs/3 min videos of the project within two months after the completion of the project to the competent authority of NCI-IIT Delhi, UBA2.0 cell. Without the submission of the completion report, the opportunity for funding of a new project will not be facilitated.



Prof. Vivek Kumar

National SEG Coordinator

Unnat Bharat Abhiyan (UBA 2.0)

National Coordinating Institute

Indian Institute of Technology, Delhi



e-Pass Sheet

(Report is generated for the period from 01-Jul-2022 to 31-Jul-2022)

Customer Name : V.E.S.INSTITUTE OF TECHNOLOGY
 Account Number : 0229101132845
 Report Generated on : 01-Aug-2022
 ADDRESS : 1ST FLOOR TRUST OFFICE
 : SINDHI SOCIETY
 : CHEMBUR
 : MUMBAI, MAHARASHTRA - 400071

Branch : MUMBAI CHEMBUR SINDHI SOCIETY
 Account Type : CANARA SB GENERAL
 Currency : INDIAN RUPEES

Txn Date	Txn Description	Debit	Credit	Balance
	OPENING_BALANCE			5557.50
02-Jul-22	ECS CREDITTHROUGHPFMS		3685.50	9243.00
02-Jul-22	ECS CREDITTHROUGHPFMS		27326.25	36569.25

08-Jul-22	ECS CREDITTHROUGHPFMS		19109.75	2806229.25
08-Jul-22	ECS CREDITTHROUGHPFMS		23636.25	2829865.50
08-Jul-22	ECS CREDITTHROUGHPFMS		15519.50	2845385.00
✓ 26-Jul-22	NEFT CR-SBIN322207939391-SBIN0004266-IRD IIT DELHI-IATTN/IINB		50000.00	2895385.00
27-Jul-22	CHQ PAID-MICR INWARD CLEARING- VIVEKANAND EDUCATION SOCI-HDFC BANK LTD.-HDFC BANK LTD. (HDF)	673200.00		2222185.00
27-Jul-22	CHQ PAID-MICR INWARD CLEARING- VIVEKANAND EDUCATION SOCI-HDFC BANK LTD.-HDFC BANK LTD. (HDF)	2167000.00		55185.00
31-Jul-22	SBINT FOR THE PERIOD FROM01-MAY-22 TO 31- JUL-22		14229.00	69414.00

Total:

Opening Balance : 5557.50 Dr Count : 2 Dr amount : 2840200
Closing Balance : 69414.00 Cr Count : 262 Cr amount : 2904056.5

ACTIVITY REPORT

Title

Eco-friendly Bio-toilet System

Submitted By:

**Vivekanand Education Society's Institute of Technology,
Chembur, Mumbai**

Bio Toilet: An Ecological Initiative

1	Name of the Institute (in Block letters)	VIVEKANANDA EDUCATION SOCIETY'S INSTITUTE OF TECHNOLOGY
2	AISHE Code	C-33895
3	Title of the Project	Bio Toilet: An Ecological Initiative

4	Name of Subject Expert Group (SEG)	IIT Delhi
5	Name of the Regional Coordinating Institute (RCI)	IIT Mumbai
6	Name of village(s) where project development activities were carried out	Asanas
7	Project Duration (with date)	From October 2022
8	Project Budget	₹ 50,000
9	Brief Introduction of the Project (Minimum 100 words)	<p>There are many villages in our country where proportion of open defecation practice is higher in rural areas than in urban areas . The ignorance has prevented basic infrastructure like water supply. One of them being Asanas village located in Palghar District in the State of Maharashtra. Due to lack of water supply and improper sewage connections the villagers face numerous issues of open defecation as they do not have access to toilets.</p> <p>Open defecation—and lack of sanitation and hygiene in general—is an important cause of various diseases. To resolve this problem our UBA Team of VESIT designed and planning to install an Ecofriendly Bio-Toilet in Asanas village to create awareness about the sanitation for prosperous health of each individual .</p>
10	Project Objective(s) / Need of the Project	<p>Lack of awareness, infrastructure and funds is a major issue which may be solved by training and education programs. The government has been trying to uplift the villages for decades by providing affordable subsidies. But just subsidies are not enough, we need a sustainable solution that can go on for a long time without obstructions. With more awareness about the scope of sanitation, more villages can make it out of darkness. Our motive was introducing a bio-toilet system which disposes human waste and saves energy, conserves water and produces energy in the form of fertilizers and recycled water for plants. These bio-toilet systems meet the need for a basic, easy-to-install and hygienic human waste disposal mechanism in areas with no nfrastructural facilities, such as sewage treatment plants. It also addresses the need for a cheaper and easy-to-operate alternative to the traditional waste disposal system. The sanitation</p>

		systems can be installed in places where conventional toilets facilities cannot be made available.
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11	(a) Current status	We have successfully designed Ecofriendly Bio-Toilet in Asanas Village. Model is ready in our institute. Only we are waiting for tank building by village people.

(b) Achievement of the project (Minimum 150 words)

We embarked on this project for the welfare of the village. Young children are particularly vulnerable to ingesting feces of other people that are lying around after open defecation, because young children crawl on the ground, walk barefoot, and put things in their mouths without washing their hands. Feces of farm animals are equally a cause of concern when children are playing in the yard. Open defecation badly harms health of children and their life quality, including psychological issues. There are strong gender impacts connected with a lack of adequate sanitation. In addition to the universal problems associated with open defecation, having to urinate in the open can also be problematic for females. The lack of safe, private toilets makes women and girls vulnerable to violence and is an impediment to girls' education.

After installation of these Bio-toilets in Asanas village to help everyone from the problem of open defecation and also to women feel safer. The success of the project will inspire the neighbouring villages and communities to adopt similar sustainable practices, further spreading the benefits of toilets will increase the awareness among the individuals about the sanitation. Bio-Toilets have a longer lifespan and require minimal maintenance, ensuring the sustainability of the project over the years.

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Project Outcomes (Minimum 100 words)

After completion of project:

- 1)Energy saving as we are using solar panel for electricity.
- 2)Water saving as recycled water can be used for flash or use for planation.
- 3)Recycled solid waste will be useful for fertilizers.
- 4)Sanitation and hygiene.

<p>13</p>	<p>Description of Project (Minimum 150 words) (Technology, Methodology, etc.)</p>	<p>The purpose of this report is to provide an overview of the progress made in developing the control panel for “Bio-toilet”. The control panel serves as a critical component in automating various processes within the system, enhancing efficiency, and ensuring seamless operation.</p> <p>Components Acquired: For the successful implementation of the control panel, we have acquired several essential components:</p> <ol style="list-style-type: none"> 1. Timer Switch 2. Float Switch 3. MCB Switches 4. Control Panel Box 5. Magnetic contactor 6. Filter 7. Pump <p>Work done till now:</p> <p>Timer Switch for Stirrer Control: One of the primary functionalities of the control panel is to regulate the stirrer. We have successfully completed the prototype for the timer switch, which enables us to control the stirrer's operation. This functionality is crucial for ensuring precise and consistent mixing processes.</p> <p>Magnetic Contactor: While significant progress has been made, the completion of the water level control using the float switch. The Magnetic Contactor is a critical component that will facilitate the interaction between the control panel and the float switch for water level control.</p> <p>Integration of Float Switch and Magnetic Contactor: We have integrated the float switch and the magnetic contactor to establish water level control functionality. This integration allowed the control panel to monitor and adjust water levels effectively.</p> <p>Prototype Completion for Water Level Control: With the float switch and magnetic contactor in place, we completed the prototype for water level control. This aspect of the control panel is essential for ensuring the proper functioning of the entire system, preventing overflows or inadequate water levels.</p> <p>Control panel: The development of the control panel is completed.</p>
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Photos with captions of the project activities (maximum of 6 photographs of high resolution)

[1]



Figure 1: Control panel with automatic and manual modes

[2]



Figure 2: Sand and carbon filter

[3]



Figure 3: 0.5 Hp Blower

[4]



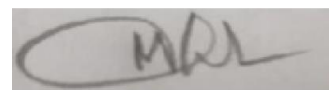
Figure 4: Monoblock Pump

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Description of each photo in maximum of 25 word

- [1] Figure 1 depicts the intended control panel for automating and manually operating the blower and Monoblock pump. Its primary function is to set a timer for the blower and to activate the pump when the tank is full.
- [2] Figure 2 depicts the sand filter and carbon filter that are used at the end of the process. They are linked in series, with the sand filter removing large impurities and the carbon filter removing minor impurities in the water.
- [3] Figure 3 depicts the blower used in the mbbf tank to create a continuous flow of air in the impure water with the bacteria culture, allowing the bacteria to remain alive and decompose impurities.

		[4] Figure 4 depicts the Monoblock pump, which is connected to the Filter feed tank and transfers water to the overhead tanks when the tank is full.
16	Impact of this project in the adopted village(s) in 100 words	The implementation of an Ecofriendly Bio-Toilet project in the adopted village will have a transformative impact. It has significantly improved the quality of life for the residents by enhancing safety and accessibility to toilets for their daily lifestyle. The Ecofriendly Bio-Toilet will not only recycles waste water but also contribute to a cleaner environment by reusing as a fertilizer for irrigation. Additionally, the project has served as a model for sustainable development, inspiring the community to embrace sanitation solutions and fostering a sense of pride and ownership. Overall, the initiative has brought about positive changes in the village, promoting sustainability, safety, and a brighter future.
17	Number of Families benefited	
18	Link of feedback videos of villagers (If any)	
19	Other relevant information (optional) (Minimum 100 words)	Conducted awareness campaigns to educate villagers and the young generation about the benefits of sanitation for healthy environment and sustainable practices, encouraging responsible usage. Engaging the community in decision-making, installation, and maintenance fosters a sense of ownership and pride in the project. Conducting a comprehensive cost-benefit analysis helps determine the economic viability and potential return on investment for the project. Incorporating Ecofriendly Bio-Toilet into the village's long-term development plan ensures that they remain a priority and receive adequate attention over time.



Mrs. Manisha Joshi
UBA co-ordinator
VESIT



Vivekanand Education Society's Institute of Technology

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Dr. (Mrs.) J. M. Nair
M. Tech., Ph.D. (IT-B)
Principal


Ref. No.: VESIT/ JMN/1325/2023-24

Date: 26/10/2023

TO WHOM SO IT MAY CONCERN

I, Dr. (Mrs.) Jayalekshmi M Nair, Principal (HOD), Vivekanand Education Society's Institute of Technology, do hereby state that the documents uploaded on NAAC portal are duly signed by Principal (HOD).

The additional documents uploaded on Institute's website (<https://vesit.ves.ac.in/>) are also authentic and does not need any extra validation.


Dr. (Mrs.) Jayalekshmi M Nair
Principal
Vivekanand Education Society's Institute of Technology
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Collector's Colony
Chembur, Mumbai, Maharashtra 400074

