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
हौजखास, नयी दिल्ली– 110016

उन्नत भारत अभियान
UNNAT BHARAT ABHIYAN

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: unnatbharatabhiyaniitd@gmail.com

Date: May 30, 2023

To

Dr. Manisha
Vivekanand Education Society's Institute of Technology, Chembur, Mumbai

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

Dear Madam

1. This is to intimate you that Technology Intervention proposal under the category of "**Technology Development**" entitled, **"Surya Sakshamta: Pragati Ka Sulabh Marg"** submitted by you under the ***Unnat Bharat Abhiyan 2.0 Program***, Project-No: **RP-03525G** has been approved by **Rural Energy System** SEG and funded by the **National Coordinating Institute UBA 2.0 (IIT Delhi)** against **C032332598186** vide dated **17-03-2023.**

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.

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

4. Any product/service developed under the sanctioned project must have UBA logo on it.

5. 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.

6. The project implementation location/site shall be selected in consideration with gram panchayat officials/ members.

7. Please take care that the position holders/Panchayat officials shall not be benefitted 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.

8. 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.

9. 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

केनरा बैंक Canara Bank

सिंडिकेट Syndicate

e-Pass Sheet

(Report is generated for the period from 01-Mar-2023 to 31-Mar-2023)

Customer Name : V.E.S.INSTITUTE OF TECHNOLOGY
Account Number : 0229101132845
Report Generated on : 01-Apr-2023
ADDRESS : 1ST FLOOR TRUST OFFICE
: SINDHI SOCIETY
: CHEMBUR
: MUMBAI, MAHARASHTRA - 400071

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

14-Mar-23	ECS CREDITTHROUGHPFMS		49341.50	4725723.15
14-Mar-23	ECS CREDITTHROUGHPFMS		49341.50	4775064.65
14-Mar-23	ECS CREDITTHROUGHPFMS		50809.50	4825874.15
16-Mar-23	ECS CREDITTHROUGHPFMS		27281.50	4853155.65
17-Mar-23	ECS PMSSSANNEX5440733		96000.00	4949155.65
17-Mar-23	ECS 4899987C03233259826		100000.00	5049155.65
20-Mar-23	ECS CREDITTHROUGHPFMS		25404.75	5074560.40

Title:

Surya Sakshamta:

Pragati Ka Sulabh Marg

Date:9/09/2023

Submitted By:

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

1	**Name of the Institute (in Block letters)**	VIVEKANANDA EDUCATION SOCIETY'S INSTITUTE OF TECHNOLOGY,CHEMBUR
2	**AISHE Code**	C-33895
3	**Title of the Project**	"Surya Sakshamta: Pragati Ka Sulabh Marg"
4	**Name of Subject Expert Group (SEG)**	NCI-IIT Delhi
5	**Name of the Regional Coordinating Institute (RCI)**	IIT Bomabay
6	**Name of village(s) where project development activities were carried out**	Asanas
7	**Project Duration (with date)**	3 Months (May 8 to September 9)
8	**Project Budget**	₹ 1,00,000

9	**Brief Introduction of the Project (Minimum 100 words)**	There are many villages in our country where ignorance has prevented basic infrastructure like street lights. One of them being Asanas village located in Palghar District in the State of Maharashtra. Due to lack of street lights, the villagers face numerous issues like accidents, unsafe travel, threats to women safety, and most importantly, barriers in education. To resolve this problem the UBA Team of VESIT installed 8 Solar Street Lights along with 8 poles in Asanas village on 9 Sept.,2023 (Saturday). We designed a charge controller that can be used in Solar street lights to ensure proper flow of current generated by the solar panel to ensure maximum intensity without damage. Lights are sensor based. Capacity of LED light is 40 Watts. Solar module is 75 watts. The intensity of the lights were planned to be sufficient enough to light up a large area. Back of battery is 16 hours We also planned a tree plantation drive with the village authorities
10	**Project Objective(s) / Need of the Project**	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 lighten up 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. But things should be better – a village solar street light is something most villagers need to be aware of. Electricity is the most basic requirement of modern society. Still, many villages in India struggle with this basic need.In such a situation, the arrival of solar street lights in villages is a boon.With more awareness about the scope of solar energy, more villages can make it out of darkness.

11	**(a) Current status**	We have successfully installed 8 Solar Street Lights in Asanas Village. The Solar Street lights which we installed have 12-16 hrs battery backup. The intensity and the working hours of lights has made their living easier, safer and comfortable.
	(b) Achievement of the project (Minimum 150 words)	We embarked on this project for the welfare of the village.Villagers are forced to travel in darkness for unavoidable chores. Many women make their way to public wells much before the sun dawns. Absolute darkness invites night predators which results in unnecessary human-animal conflicts. But when a village solar street light provides adequate lighting, the risks of all mishaps are reduced. Pollution is kept under control by avoiding the traditional method of lighting by keeping low carbon footprint which are environmentally sustainable. We have placed these lights in places suggested by villagers to help students of the local school from study after sunset, to ensure a bright future, for the betterment of the village and hence it will affect the country's future. The success of the project will inspire the neighbouring villages and communities to adopt similar sustainable practices, further spreading the benefits of solar technology. Solar street lights have a longer lifespan and require minimal maintenance, ensuring the sustainability of the project over the years.

12	**Project Outcomes (Minimum 100 words)**	We have received positive Feedback from the rural people about our social work. The installation of solar street lights has improved the quality of life of the villagers and increased scope of small-scale businesses to a large extent. With adequate lighting,village people can work even after sunset without any fear. This is especially beneficial for businesses that need funds to afford generators or other sources of electricity. Additionally, solar street lights increase the value of the properties around them. It makes rural areas much safer for villagers, especially for women It's cost-effective and easy to install and maintain.
13	**Description of Project (Minimum 150 words)** **(Technology, Methodology, etc.)**	Solar energy is the energy generated by the sun. Solar energy can be harnessed directly or indirectly for human use. Solar panels are composed of several individual solar cells which are themselves composed of layers of silicon, phosphorus and boron. Solar panels absorb the photons and in doing so initiate an electric current. The solar panels charge a rechargeable battery, which powers a fluorescent or LED lamp during the night. It uses PIR(Passive Infrared Sensor) that utilises infrared radiation emitted from us to trigger the light. PIR(Passive Infrared Sensor) can detect nearby movement and increase the brightness of the lights when needed, conserving energy when no one is around. Our Team has designed a Charge controller using PCB. This Charge controller circuit is used in street lights. A solar charge controller is used to keep the battery from overcharging by regulating the voltage and current coming from the solar panel to the battery. It also ensures that the battery is charged optimally and extends its lifespan. Solar street lights can be mounted on poles or attached to buildings or other structures, depending on the specific application and design. Proper installation of lights to ensure the solar panels are positioned to receive maximum sunlight(south direction for India) and that the light fixtures are appropriately positioned for effective illumination.

14	**Photos with captions of the project activities (maximum of 6 photographs of high resolution)**	 Fig 1: Professor explaining the project details to the students.  Fig 2: Students working on charge controller circuit.  Fig 3: Enlightening the villagers about the project and the initiative by UBA.

Fig 4: Students installing the Solar Street lights.

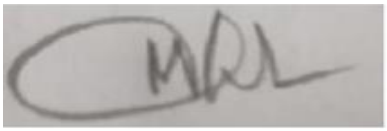
Fig 5: Solar Street light image after installation.

		 Fig 6: Taking feedback from the villagers regarding the project and UBA.

15	**Description of each photo in maximum of 25 word**	Fig 1: Professor explaining the details of the project and about the concepts of charge controller circuit to the students. Fig 2: Students designing and implementing the charge controller circuit on the bread board. Fig 3: Enlightening the villagers and village students about the UBA program and about the project and how they can benefit from it. Fig 4: Students assembling and installing solar lights on the allotted locations by configuring the direction of panel and LED to the area which is to be illuminated. Fig 5: Eight solar lights were installed on the locations suggested by the villagers where there was no availability of light during the night Fig 6: After installation of lights we took feedback from the villagers regarding the project, Unnat Bharat Abhiyan, their views about this initiative.
16	**Impact of this project in the adopted village(s) in 100 words**	The implementation of an automatic solar street light project in the adopted village has had a transformative impact. It has

		significantly improved the quality of life for the residents by enhancing safety and accessibility during nighttime. The solar-powered lights not only reduce electricity costs but also contribute to a cleaner environment, mitigating the carbon footprint. Additionally, the project has served as a model for sustainable development, inspiring the community to embrace renewable energy 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**	100
18	**Link of feedback videos of villagers** **(If any)**	https://drive.google.com/drive/folders/1AfelM6o1xDhAiDRvxDAH68nbvewaIcRe
19	**Other relevant information (optional)** **(Minimum 100 words**	Conducted awareness campaigns to educate villagers and the young generation about the benefits of solar energy, sustainable practices and encouraged 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 solar street lights into the village's long-term development plan ensures that they remain a priority and receive adequate attention over time.
20	**Comments from the SEG**	

21	**Comments from National Coordinating Institute (NCI)**	
22	**Clarification from Participating Institute (PI)**	Our students designed solar street lights along with charge controller circuits from sanctioned fund. Solar lights are installed by students and faculties.



Mrs.Manisha Joshi

UBA co-ordinator

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

Vivekanand Education Society's
Institute of Technology

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

Since 1962

Dr. (Mrs.) J. M. Nair
M. Tech., Ph.D. (IIT-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 (HOI), Vivekanand Education Society's Institute of Technology, do hereby state that the documents uploaded on NAAC portal are duly signed by Principal (HOI).

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

Jayalekshmi

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

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