



Metric 3.4.1

Extension activities are carried out in the neighborhood community, sensitizing students to social issues, for their holistic development, and impact thereof during the year.

TABLE OF CONTENTS

SL. NO	CONTENTS	PAGE NO
1.	LIFE MISSION FINAL TASK	3
2.	ENVIRONMENT DAY	3
3.	BLOOD DONATION CAMP (Stage 1)	4
4.	GROUND CULTIVATION	4
5.	VANAMAHOTSAV 2022	4
6.	BLOOD DONATION CAMP STAGE-2	5
7.	BLOOD DONATION FOR LIVER TRANSPLANTATION	6
8.	CLEANTECH CHALLENGE (Introductory event)	7
9.	ANTI-DRUG PLEDGE	8
10.	NATURE CONSERVATION DAY	8
11.	JEEVANA COUPON RELEASE	9

12.	DISTRIBUTING COUPON FOR JEEVANA	10
13.	HAR GHAR TIRANGA CERTIFICATION	11
14.	ORPHANAGE VISIT	11
15.	COLLECTION OF FUNDS FOR JEEVANA	12
16.	CLEAN UP DRIVE -TOURISM DAY	13
17.	DRUG FREE CAMPAIGN	13
18.	KTU CARE CAMP AND JEEVANA INAUGURATION	14
19.	SESSION ON BASIC LIFE SUPPORT AND CPR	14
20.	ORGANIC CULTIVATION (Day 1)	15
21.	ORGANIC CULTIVATION (Day 2)	16
22.	ORGANIC CULTIVATION (Maintenance)	17
23.	RUDHIRASENA ORIENTATION	17
24.	LED MANUFACTURING WORKSHOP	18
25.	REPUBLIC DAY CELEBRATION AND CLEANING	19
26.	BRAKE 2022	20
27.	HUMAN CHAIN AGAINST DRUGS	23
28.	LIGHT UP - Spread Light in Darkness	25

Report of Activities from June 2022 to July 2023

1. LIFE MISSION FINAL TASK

NSS volunteers of VJCET started working on the third stage of life mission on 3rd June 2022. The aim of the 3rd stage was to contact the beneficiaries who were approved by LB committee. Each volunteer contributed their best & it was a great experience. On 11th June 3rd stage came to an end & we submitted the details of all the beneficiaries' a token of appreciation for the efforts of the volunteers, certificates were granted to the volunteers by LIFE MISSION KERALA in collaboration with GOOD DEEDS DAY and DC volunteers as a part of Every Indian Volunteering Campaign by capital social foundation on 23rd June. Around 119 volunteers had participated in this program.

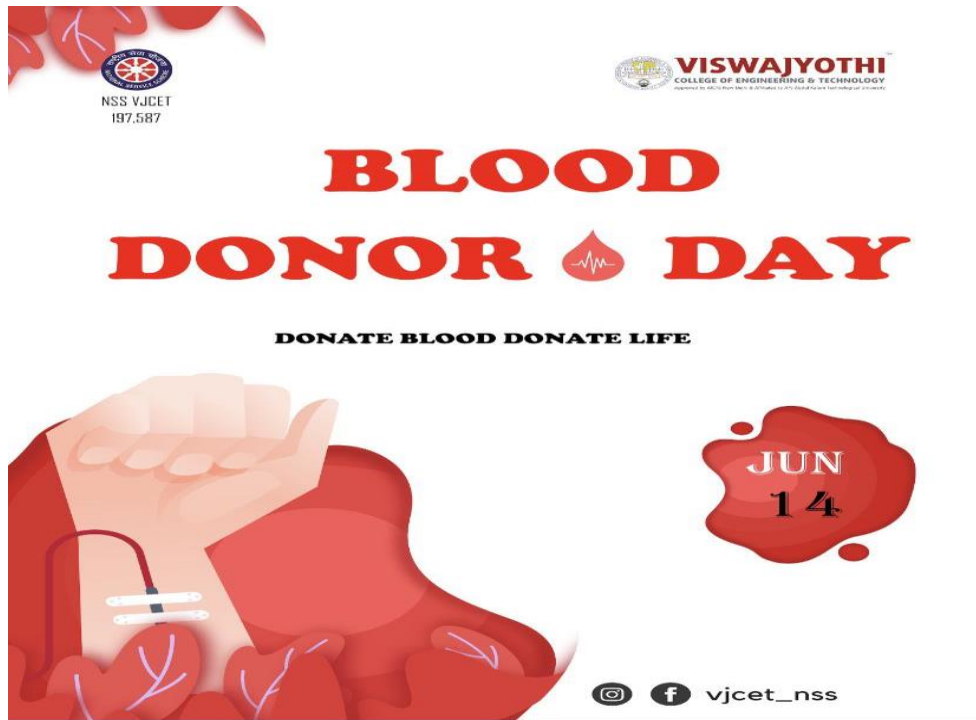
2. ENVIRONMENT DAY

The beautiful vegetable garden we built in the past few months had reached the stage of harvesting. We NSS Volunteers were very proud and happy as it is our hard work and team coordination that helped us to make the NSS garden a great success. We collected many vegetables and made a great profit on that day. All NSS volunteers took part in the program, and it was a huge success. Around 146 NSS volunteers had participated.



3. **BLOOD DONATION CAMP (Stage 1)**

The first phase of blood donation was successfully completed by the NSS Volunteers of Rudhirasena wing VJCET collaborated with IMA Thodupuzha. The program started at 9 am and it was open to everyone to donate blood . An overwhelming response was obtained from the students, faculties and other people in the nearby locality and collected 72 units of blood. Exceeding our expectations over 200 blood donation forms were received. We enquired all blood donors about their medical history before donating blood. None of the donors reported any sort of health issues after donating blood. The program was a great success. Certificates were provided by IMA Thodupuzha and 88 volunteers participated.

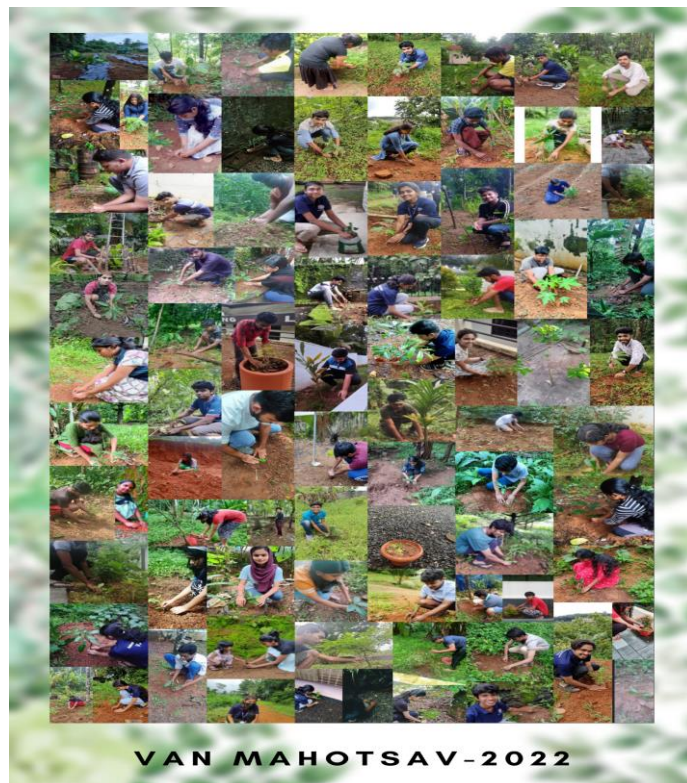


4. **GROUND CULTIVATION**

As a part of the institutional cultivation project, the volunteers of NSS, VJCET had done some maintenance work on the NSS cultivation ground & cultivated some Vegetables on 29th June 2022. The volunteers worked hard to get a best result on the ground. Even in the worst climatic conditions like heavy rain & hot sun the volunteers had done an astonishing work. We added natural fertilizers, removed weeds, provided adequate care. The tough grind of the volunteers made their hard work fruitful. The yields from our garden were a treat to the eyes and heart. 120 NSS volunteers had participated.

5. **VANAMAHOTSAV 2022**

NSS NRPF volunteers of VJCET decided to practice afforestation for Van Mahotsav on 1-7 of July 2022. All the volunteers' planted trees in their own homes as part of this event. After the event the photos of volunteers planting trees were submitted through google drive by 7th July. 84 volunteers participated.



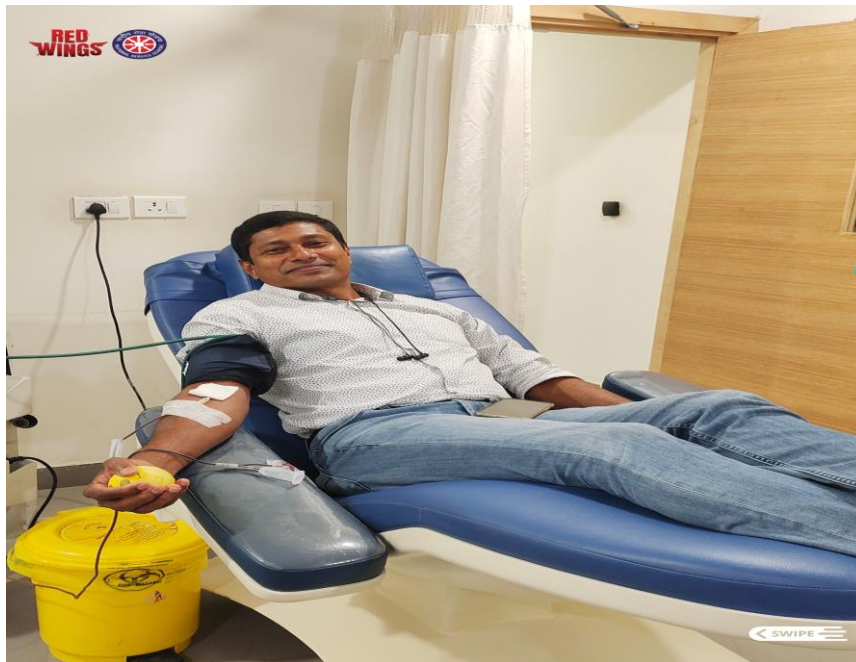
6. BLOOD DONATION CAMP STAGE-2

Rudhirasena NSS volunteers of VJCET conducted the second stage of blood donation camp on 4th July 2022. The 2nd stage was completed with 73 donations. In total, we were able to complete 145 donations. The NSS volunteers, college faculties and many others actively participated in this event making this a mass success. 86 volunteers participated.



7. BLOOD DONATION FOR LIVER TRANSPLANTATION

In coordination with Rudhirasena coordinators of VJCET NSS, 7 units of blood were donated for the liver transplantation of Sijo Mani. Justin C, Jeevan Benny, Eldho Peter Regi, Aleeta Rose, Basil Skaria, Pranav T Pramod and Athul G Anil were the donors. The donors were healthy and did not mention any sort of health issues after donating. 17 volunteers participated.



8. *CLEANTECH CHALLENGE (Introductory event)*

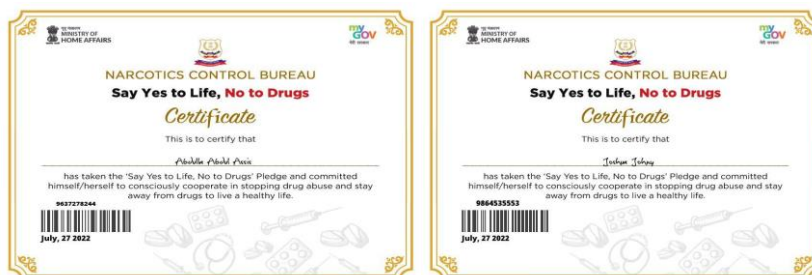
The promotional event for Clean Tech Challenge was successfully carried out by NSS VJCET in collaboration with the Energy management cell, Government of Kerala. KTU NSS Cell and Energy Cell of NSS VJCET. The program was coordinated for the NSS volunteers near MAIN AUDITORIUM VJCET from 3.30 to 4.30 pm in the college campus on 26/07/2022. All the NSS volunteers actively attended the

session without fail. An interesting quiz session was held in the beginning which added beauty to the ceremony and the winners were awarded. Students gained insights on Clean Energy and everything associated with it. 153 NSS Volunteers participated.



9. ANTI-DRUG PLEDGE

As part of ANTI-DRUG DAY all the NSS Volunteers pledged themselves not to use any kind of drugs. All the NSS Volunteers took part in it and submitted the google forms. Certificates were provided after the submission of the google forms and were downloaded and uploaded in google drive. 67 volunteers participated.



10. NATURE CONSERVATION DAY

As a part of Nature Conservation Day the maintenance and cleaning activities on the vegetable garden was done on 28th July by the NSS volunteers. A bunch of vegetables were harvested and weeds were cleared from the garden. After the maintenance activity, the volunteers left with a handful of vegetables. 96 volunteers had participated.



11. JEEVANA COUPON RELEASE

Kidneys perform crucial and sophisticated functions within our body. So, it is vital to treat kidney failure. In order to do that, dialysis is the best method. Most people need 3 sessions of dialysis a week. Many poor families cannot afford the treatment. so KTU Care Coordinators of NSS VJCET collabed with Renal Care Foundation for collecting money for dialysis Coupon and it's given to one who needs the most. As a kick start to this flagship event, the Renal care foundation provides us a platform for the official coupon handling. They presented the coupon to principal and our team. Principal Dr.KK.Rajan and all the eminent ones present over their especially MLA Mathew M Kuzhalsadan appreciated our startup and 50 volunteers had participated.



12. DISTRIBUTING COUPON FOR JEEVANA

The volunteers of KTU care, NSS VJCET distributed the coupon for the event Jeevana, to Adv. Mathew Kuzhlnadan (Hon. MLA Muvattupuzha constituency).

The coupons aim for the fundraising for diabetes, for those who cannot afford it. KTU care coordinators of VJCET NSS, volunteer secretaries, joint secretaries were present. 61 volunteers had participated.



NSS VJCET
UNIT -197,587

ALUMNI ASSOCIATION
VISWAJYOTHI

ജീവന

KTU CARE , NSS VJCET distributing the coupon for the event **JEEVANA** to Adv. Mathew Kuzhlnadan (Hon.M.L.A, Muvattupuzha Constituency) ”

VISWAJYOTHI
COLLEGE OF ENGINEERING & TECHNOLOGY
Approved by AICTE New Delhi & Affiliated to APJ Abdul Kalam Technological University

Instagram, Facebook, Twitter icons | vjcet_nss

JEEVADHARA
RENAL CARE
FOUNDATION
Vazhakkalam

13. HAR GHAR TIRANGA CERTIFICATION

All NSS volunteers pan India were asked to upload their pictures with the national into the har Ghar tiranga website. VJCET NSS volunteers actively participated in this program and uploaded the certificates into the google drive provide and 90 students had participated in the programme.



14. ORPHANAGE VISIT

The NSS volunteers of VJCET, under the guidance of KTU Care coordinators of VJCET NSS, visited Snehatheeram Rehabilitation Center located at Machiplavu, Adimali on 24 September 2022, as a part of 'one day one rupee' mission. We were able to contribute them some necessities like clothes, bedsheets, towels and other necessary items. Only a limited number of volunteers were allowed to visit the orphanage

and they indulged in the precious moments of that day Around 200 students had accompanying participated in the visit.



15. COLLECTION OF FUNDS FOR JEEVANA

The NSS volunteers of ViswaJyothi college, under the guidance of KTU coordinators of VJCET NSS, collected 5 lakh rupees as part of JEEVANA. Jeevana is an initiative by VJCET NSS and alumni association of ViswaJyothi college of engineering and technology in association with jeevadhaara renal care foundation, Vazhakulam. Jeevana is a fundraising campaign for dialysis of people who are financially struggling. The fundraising was done by distributing coupons. The VJCET NSS volunteers gathered an amount of 5 lakhs by distributing 500 coupons worth 1000/-. Everyone actively took part in this initiative and around 104 members participated.



16. CLEAN UP DRIVE -TOURISM DAY

VJCET Tourism Club associated with the Tourism Department of Kerala and DTPC Ernakulam and conducted a cleanup drive at Bhoothathankettu as part of Tourism Day on 27th September 2022. VJCET NSS took initiative of Captains Foundation in which the volunteers helped in removing plastic waste near Bhoothathankettu park and the wastes were disposed properly. The volunteers actively participated in the cleaning process. 173 volunteers got certificates provided by the Tourism Department.



17. DRUG FREE CAMPAIGN

The inauguration of the drug free campaign by the department of higher education was done by honorable chief minister of Kerala, Shri Pinarayi Vijayan at 9:45 am on 6th October. The event was telecasted live at the main auditorium of Viswajyothi college of Engineering and technology. Around 165 students appeared for the event.



18. KTU CARE CAMP AND JEEVANA INAUGURATION

The two-day residential training program on palliative care jointly organized by KTU NSS and pallium india and the inauguration of jeevana, an initiative of KTU care, was conducted on 15th and 16th of October, 2022. Jeevana is an initiative by vjcet NSS and alumni association of Viswajyothi college of engineering and technology in association with jeevadhaara renal care foundation, Vazhakulam. Jeevana is a fundraising campaign for dialysis of people who are financially struggling. The fundraising was done by distributing coupons. Initially Vjcet NSS volunteers gathered an amount of t lakhs by distributing 500 coupons worth 1000/- after which Jeevana was made a state level event by KTU care. Around 50 volunteers of VJCET NSS volunteered for the whole event. Everyone gave their 100% to make the event a grand success. NSS Volunteers of VJCET put their maximum for the success of the event, their hard work for the past week had made the event mesmerising. The group of 64 Volunteers from various colleges across Kerala appreciated them.



19. SESSION ON BASIC LIFE SUPPORT AND CPR

On October 26, there was a session based on basic life support and cpr, conducted by Dr. Joseph Manoj [MBBS, MS(Ortho) and MCh(Orth)]. He is a well experienced doctor and works as an Orthopedic

surgeon at St. Joseph’s Hospital, Kothamangalam, Sacred Heart Hospital, Arakuzha and as a visiting faculty at St. Gregorios Dental College Cheladu. This session was mainly conducted for NSS Volunteers and First Year Students in association with Leo Council and Youth Ministry Kolenchery. This session was a huge success as 127 students actively took part in it.



20. ORGANIC CULTIVATION (Day 1)

The Plantain cultivation by VJCET NSS was conducted on 10th and 11th November at the NSS cultivation ground. The saplings were planted and taken care of by the volunteers. A group of 166 volunteers participated and planted a sapling.





● ഞങ്ങളും കൃഷിയിലേക്ക് ക്യാമ്പയിന്റെ ഭാഗമായി വാഴക്കുളം വിശ്വജ്യോതി എൻജിനീയറിങ് കോളജിൽ ആരംഭിച്ച പച്ചക്കറി തോട്ടത്തിന്റെ ഉദ്ഘാടനം മാതൃ കൃഷൽനാടൻ എം.എൽ.എ. നിർവഹിക്കുന്നു.

ഞങ്ങളും കൃഷിയിലേക്ക്; വിശ്വജ്യോതിയിൽ പച്ചക്കറിക്കൃഷി

വാഴക്കുളം സംസ്ഥാന കൃഷി വകുപ്പ് നടപ്പാക്കുന്ന ഞങ്ങളും കൃഷിയിലേക്ക് ക്യാമ്പയിന്റെ ഭാഗമായി വാഴക്കുളം വിശ്വജ്യോതി എൻജിനീയറിങ് കോളജിൽ ആരംഭിച്ച ഇൻസ്റ്റിറ്റ്യൂഷനൽ കൾട്ടിവേഷൻ പദ്ധതി മാതൃ കൃഷൽനാടൻ എം.എൽ.എ. ഉദ്ഘാടനം ചെയ്തു.

കോളജിലെ നാഷണൽ സർവീസ് സ്കീം യൂണിറ്റിന്റെ നേതൃത്വത്തിലാണ് പദ്ധതി ആരംഭിച്ചത്. കൃഷി മരക്കുന്ന യുവതലമുറയ്ക്ക് പ്രചോദനമാകും വിധ

ക്കുന്നത്. പയർ, വെണ്ട, തക്കാളി, പാവര, പടവല, പച്ചമുളക് തുടങ്ങി 16 ഇനം പച്ചക്കറികളാണ് കൃഷിയിടത്തിൽ ഉള്ളത്. പദ്ധതിക്ക് ആവശ്യമായ മാർഗനിർദ്ദേശങ്ങളും വിദഗ്ധ ഉപദേശങ്ങളും നൽകിയത് ആവോലി ഗ്രാമപഞ്ചായത്തും ആവോലി കൃഷി ഭവനും ചേർന്നാണ്.

കോളജ് മാനേജർ മോൺ. ഡോ. പയസ് മലക്കുണ്ടത്തിൽ, പ്രിൻസിപ്പൽ ഡോ. കെ.കെ. രാജൻ, ഡയറക്ടർ ഫാ. പോൾ നെടുപ്പുറത്ത്, ട്രസ്റ്റ് സെക്രട്ടറി

പി. മാത്യു, ആവോലി ഗ്രാമപഞ്ചായത്ത് പ്രസിഡന്റ് ഷെൽമി ജോൺസ്, കൃഷി ഓഫീസർ ശ്രീല ഗോവിന്ദൻ, പഞ്ചായത്ത് വൈസ് പ്രസിഡന്റ് ജോർജ് വർഗീസ്, വാർഡ് അംഗം ബിജു ജോസ് എന്നിവർ പ്രസംഗിച്ചു.

എൻ.എസ്.എസ്. പ്രോഗ്രാം ഓഫീസർമാരായ രാകേഷ് ജോസ്, ശാന്തനു പി. മോഹൻ, നാഷണൽ സർവീസ് സ്കീം വോളണ്ടിയർ സെക്രട്ടറിമാരായ എൽ ദോ പീറ്റർ റെജി, അക്ഷര ജോഷി, അജിനാഥ് പി. ജോർജ്, ഗാഥ

21. ORGANIC CULTIVATION (Day 2)

The Plantain cultivation by VJCET NSS was conducted on 10th and 11th November at the NSS cultivation ground. The saplings were planted and taken care of by the volunteers. Around 163 volunteers participated and planted a sapling.



22. ORGANIC CULTIVATION (Maintenance)

The Maintenance of Plantain cultivation by VJCET NSS was conducted on 10 th December at the NSS cultivation ground. The saplings were planted and taken care of by the volunteers. A group of 160 volunteers planted and participated.



23. RUDHIRASENA ORIENTATION

A Rudhirasena orientation program was held for NSS volunteers of vjcet on 5th December at 2:30 pm. The session was led by Mr Muhammad Sahil and Pranav. The session included a detailed introduction about Rudhirasena cell and its activities. It was filled with many activities and everyone totally engaged in them. 165 students had participated in the orientation program.





24. LED MANUFACTURING WORKSHOP

An LED manufacturing workshop was held by VJCET NSS in coordination with IEDC. The session was led by Mr. SHIBU P LUKOSE, Chief Product designer & International Lighting Consultant and Auditor, Lutron Technologies. All the students & other participants from the panchayat made their own LED bulbs and tubes under the guidance of the resource person and student volunteers. Everyone involved actively in this workshop and 159 NSS volunteers had participated in the program.





25. REPUBLIC DAY CELEBRATION AND CLEANING

The 74th republic day of our country was celebrated by VJCT NSS volunteers on 26 th January at 10 am. The Indian National flag was hoisted by Avoli panchayat president Srimati Shelmy Johns. The spirit of republic day was shared on this occasion by other dignitaries.

The volunteers gathered around Avoli grama panchayat building and cleaned the surroundings. Plastic and e-wastes were collected and managed properly. Volunteers distributed sweets to panchayat officials, local residents and shop keepers. 136 volunteers had participated in the program.

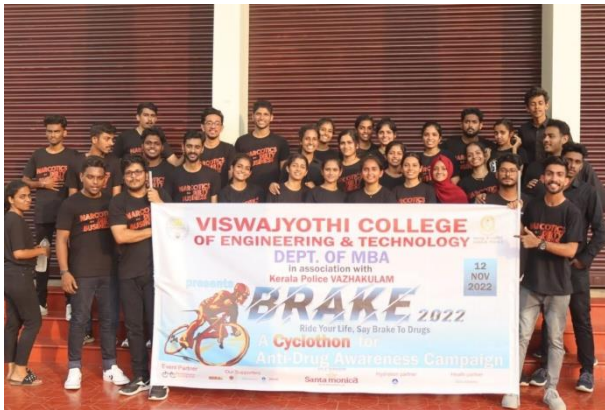


26.BRAKE 2022
ANTI-DRUG AWARENESS CAMPAIGN



BRAKE 2022

The Department of MBA of Viswajyothi College of Engineering and Technology, Vazhakulam organized a one week programmed against drugs named BRAKE. The program was conducted to contribute to safer and healthier communities through coordinated efforts to prevent use, treat dependency, and reduce production and distribution of illicit drugs. This program aims to raise awareness to the society especially to the youth the importance of drug awareness as it will ensure us a safety and preventive measure away from drugs. It will evoke the students to realize the significance of the preservation and protection of our



life away from drugs. This activity is a great opportunity to open up another door for us to do something to educate people against to stop or prevent doing drugs. We may not be able to put everything back into place but the thing is that we at least program aims to raise awareness to the society especially to the youth the importance of drug awareness as it be ensuring us a safety and preventive measure

away from drugs. It will evoke the students to realize the significance of the preservation and protection of our life away from drugs. This activity is a great opportunity to open up another door to for us to do something to educate people against to stop or prevent doing drugs. As promotional activities, posters, flash mob, mime were conducted.

MIME AND FLASH MOB AT VISWAJYOTHI COLLEGE OF ENGINEERING AND TECHNOLOGY, VAZHAKULAM

As a part of the Brake event, Department of MBA, Viswajyothi College of Engineering and Technology organized a mime and Flash mob in the college campus on 7th November 2022 which eventually was a huge hit by means of promotion. Mime performance clearly depicted the harmful effects of drug usage like job termination, rape etc.



MIME AND FLASH MOB AT PRIVATE BUS STAND, THODUPUZHA

For further reach of the event – BRAKE '22, mime and flash mob was conducted in Thodupuzha private bus stand. The Dean and head of the department of MBA did the balloon release symbolising the anti drug campaign.



CYCLOTHON

The cyclothon event named BRAKE 22 with the tagline – ‘Ride your life, say brake to drugs’ was conducted on 12 November 2022. The cyclothon started from VJCET Campus to Malankara dam, which covers almost 40km round trip. Cyclists from all over Kerala participated for the cyclothon. On 12 November 2022, Registration started by 5.30am. The flag off was done by Mr.



Manoj TK, SI of Police, Vazhakulam Police Station. College director Fr. Paul Nedumpurath, Dean and HOD of MBA Department Dr. Cyriac Joseph Vempala, Skill Development and Competency Enhancement Coordinator Fr. Mathew Puthenkukam, program coordinator and Asst. Professor Merrin Geordie Pottas, Student Coordinator George Augustine, cyclists from different clubs, teachers and students took part in registered the event.

27. HUMAN CHAIN AGAINST DRUGS

A Human Chain was formed by all students of Viswajyothi on Nov 1st 2022, starting from the gate of the college till Vazhakulam Town. It was conducted as a campaign against the usage of drugs. All staffs and students of VJCET took part in the event. The Human Chain event was organized in association with Vazhakulam Police, Merchant’s Association and Muvattupuzha Excise Range. College Manager Rev. Dr. Pius Malekandathil recited the Anti-Drugs pledge, and Director, Principal, staff and students joined him.

ലഹരിക്കെതിരെ...

വാഴക്കുളത്ത് മനുഷ്യചങ്ങല തീർത്ത് വിദ്യാർത്ഥികൾ

asianet news

f /asianetnews YouTube /asianetnews Instagram /asianetnews Twitter @AsianNewsML



LIGHT UP - Spread Light In Darkness

IEEE AP-S and IEEE HAC: AP-S-Relevant Technology for Local Community Challenges

IEEE VJCET SB

SHARON ALICEA D

Mr. Anish Jose

Viswajyothi College of Engineering
Ernakulam, Kerala 686670

anishmj@ieee.org
O: 94471 22163

Application Form

Administrative Information

Primary Applicant Name:*

ANISH M JOSE

Primary Applicant Email:*

anishmj@ieee.org

Primary Applicant is affiliated with which IEEE OU:*

IEEE VJCET SB, Viswajyothi College Of Engineering And Technology

Primary Applicant IEEE Member Number:*

95412652

Primary Applicant IEEE Member Grade:**Please note that the primary applicant must be an IEEE Member or higher grade.*

Member

Co-Applicant Name:

ANJALY SAJI

Co-Applicant Email:

anjalysaji00@ieee.org

Co-Applicant is affiliated with which IEEE OU:

IEEE VJCET SB, Viswajyothi College Of Engineering and Technology

Co-Applicant IEEE Member Number:

96173819

Co-Applicant IEEE Member Grade:

Student Member

Project Name*

LIGHT UP - Spread Light In Darkness

In what country will your project take place?*

If more than one country, please select the primary country, or country where you will begin implementation.

India

Funding requested in USD*

Awards of up to US\$3,000 will be made to selected projects that present a convincing plan to a) understand the real needs of a local community or local stakeholder organization and b) complete in no more than six months' time a pilot project utilizing AP-S-relevant technology to address those local community challenges. (Funding up to US\$ 5,000 may be approved for convincing projects on pressing issues challenging an underserved community.)

\$4,998.74

IEEE Organizational Unit (Section)*

Which IEEE Section is acting as the fiscal agent to receive approved funding? Please do not list an AP-S Chapter.

IEEE KERALA SECTION

OU Contact (Section Chair):*

Ms. Mini Ulanat

OU Contact (Section Chair) Email:*

miniu@ieee.org

SECTION 1: Project Overview and Background

Which of the following areas does your project address:*

Information and Communications Technology (ICT)

Sensors

Sustainable Power Sources

Other issue of pressing community need

If you selected "Other issue of pressing community need" in the previous question, please explain.

Humanitarian need of community

Request category:*

Is this a new submission or a request for additional funds for replication/scaling of a completed AP-S or HAC project?

New Submission

Additional IEEE HAC Funding Opportunities:

Have you or another member of your project team submitted any proposal (for this project or another project) to another IEEE HAC Projects funding opportunity? This could include the IEEE Region 10 and HAC Call for Proposals or the IEEE EDS and HAC Call for Proposals, or the HAC/SIGHT Calls for Proposals. If so, please state the title of the other proposal.

N/A

Executive summary of project, including location, needs, and intended solution.*

If this is a request for additional funds, please include your project number (if applicable) and summarize the results of your successfully executed HAC/SIGHT COVID project or AP-S project.

As a part of IEEE APS and IEEE HAC project call we the volunteers of IEEE SB VJCET and IEEE SIGHT VJCET under the guidance of local government visited the forest area of Pooyamkutty, Kuttampuzha Grama Panchayath. We took a survey on all the issues faced by the people. There are 250 families living in the forest. Most of them work for daily wages outside the forest, and they reach their home late during the night which includes women and men. For them reaching their community through the scary forest is very difficult. There is not even one street light throughout their journey. We feel that this was a basic necessary to provide safety in night. We discuss the issue with the volunteers. So we are here with LIGHT UP - Spread Light In Darkness. The aim of our project is to set a smart street light system in the forest which uses solar energy and works on IoT implemented using wireless communication. The primary and main advantage of IoT is monitoring. IoT mainly aids to be helpful to people in their daily life by making their devices communicate with each other in an efficient manner thereby they will be receiving alert messages about the production of solar energy, working of street lights, efficient time of light, battery life term and also alert messages will be send through mobile application incase of any issues with the production of light by the street light. The use of wireless communications enable our systems to be more efficient as the chance of them getting affected by natural calamities as other site is a forest area and we have possibilities of natural calamities. Taking the case of our location where the project is to be implemented the use of solar energy is the best and most efficient way to obtain energy to power our smart solar system as it is readily available as well as is of less maintenance.

So we believe that by the successful implementation of our project LIGHT UP their life on their forest will be improved and they can walk through the forest at night.

Check up to three relevant UN Sustainable Development Goals (SDGs) that the project addresses.*

<https://www.un.org/sustainabledevelopment/sustainable-development-goals/>

- Goal 7: Affordable and Clean Energy
- Goal 8: Decent Work and Economic Growth
- Goal 9: Industry, Innovation and Infrastructure
- Goal 10: Reduced Inequalities
- Goal 11: Sustainable Cities and Communities
- Goal 15: Life on Land

SECTION 2: Stakeholder Mapping and End-user Engagement

Who are the stakeholders and how will they be engaged in the project?*

We the volunteers of IEEE SB VJCET are planning to implement a project at Forest Area of Pooyamkutty Settlement Area Kuttampuzha Grama Panchayath. In this project, the main stakeholders are the volunteers who are taking initiative for it. They will be engaged by being part of the project implementation and will have technological experience by learning about one of the fast-growing technologies IoT (Internet of things) and about wireless communication which is now applicable in most of the technologies. The next stakeholders are the community in the forest. Most of the people in that locality work for the daily wages so they reach their home very late. By enabling vision, the use of light at night delivers several benefits to people. Such benefits include greater safety for pedestrians and drivers, reduced fear of crime, more use of outdoor facilities after dark, enhanced economic growth, the creation of built and natural environments that are a source of beauty and entertainment. Women and children will be able to travel at night safely. Forest officials who work there will also find it easy during their duties at night. This project will also be an inspiration for the younger generations who will find an interest in the new technology, and we will be engage them in this project by giving them training sessions for those who are interested.

Pooyamkutty - Manikandanchal
<https://maps.app.goo.gl/bCZrK3w7BzeL5dMz7>

SECTION 3: Project Assessment

Please explain the technology that will be used in the project. *

The objective of the project is to setup a wireless smart streetlight system. Taking a look into the present ways of implementing a smart street light system would include the use of sensors and wired equipment's for implementing the same. We would like to bring up IoT, wireless communication and also solar energy usage in our project. The primary and main advantage of IoT is monitoring. IoT mainly aids to be helpful to people in their daily life by making their devices communicate with each other in an efficient manner thereby saving and conserving energy and cost. Thereby using such a technology will help us to continuously monitor and track working of our smart street light system also the provision to receive notifications in case of any fault will enable our system to become more efficient. It gives us a constant monitoring and also it will give us constant alerts of the production rate and working of the street light through the applications connected through mobile phones. Wireless communication involves the transmission of information over a distance without the help of wires, cables or any other forms of electrical conductors. As our community is a forest area there are risk of destroying the wired communication by all means so we are providing wireless communication which is more beneficial. Taking the case of our location where the project is to be implemented the use of solar energy is the best and most efficient way to set up the street light that works on solar light.

Please upload the completed Project Assessment Matrix, which measures outputs and outcomes. *

Please **download** the file [Project Assessment Matrix Template 2021-JUL.xlsx](#), open and enter your data, **SAVE** with a NEW file name, and upload in the space provided.

22-APHAC-11 MATRIX - LIGHT UP.xlsx

Will your project use open source and result in open source resources for others to use?*

Please explain.

Yes, our project tries to put up open resources for others to use as the first priority. Solar based smart street lights working on IoT will be great benefit for the community. These techniques can be passed on to future generation as we will be progressing towards a complete smart world. Thus this project is a great provider of open resources for the people of the settlement to use and develop their own life. We believe that the project will be a great opportunity and a great recourse for them.

Please describe any similar projects being implemented in the region where you will be working.*

Are there any similar projects being implemented by other IEEE volunteers, institutions, organizations, or the government in the region where you will be working? If so, what are they?

Schnell installed the decorative poles in major peaks of Ernakulam and West Kochi Covers area of 3000 meters using wired network.

<https://www.facebook.com/101174535465585/posts/263550799227957/?flite=scwspnss>

Solar Street Light

<https://www.intelizon.com/solar-street-lights-across-india/amp/>

But here we are planning to provide wireless network and controlling the lamps with IoT technology in a remote forest area.

SECTION 4: Project Implementation Plan

Project work plan and milestones*

Please outline the proposed project work plan, expected timelines, and milestones associated with successful implementation of the proposed objectives.

Do not duplicate what is in the executive summary or project assessment.

We had seen the project call on 15/01/2022 and was so happy that the project submission date was extended then we planed for an idea.

Fortunately we came to know about the need of the community in pooyamkutty forest ,Kuttampuzha Gramapanchayath, Ernakulam, Kerala on19/01/2022.

The very next day 20/01/2022 we held an Execom meeting to discuss this problem. After understanding the problem, we were planning to discuss more on this faced by that area and finally reached at an idea.

Thus we contacted the panchayath on 23/01/2022 for taking permission for the project to be worked on, we explained our idea they were really impressed.

On 24/01/2022 we called on an Execom meet for the further discussion and making up the project.

By 26/01/2022 we formed the core team for the project implementation and we planned to visit the site.

On 28/01/2022 we visited pooyamkutty forest area along with the forest officials and gave an idea to the villagers and they were so happy to know that we had included their needs to make it beneficial.

After that we worked with the plan and on 3/02/2022 An online meeting including the village authorities were kept as an informative session which had conveyed and explained the project idea, plans, implementation time and local support

By 06/02/2022 We arranged a meeting of project team members to discuss about the project and finalize the budget of the project.

On 08/02/2022 We conducted a survey report to estimate the requirements .
 We informed APS Kerala chapter and the Kerala session chair about the project on 12/02/2022 and they offered to provide all sort of support.
 As these were successfully carried out we decided to apply for the project.
 Till half of May, we are planning to give our Student Team different training webinars based on the current field so that they can be well aware of the situation.
 The training will definitely help the team to implement the project also. So we can implement the project at the end of August.

Are there any restrictions in place that would impact the execution of your project?*

For example, mobility restrictions due to COVID-19, shelter in place, etc. Please share details of mitigation plan.

Currently there is no restrictions in place at the moment .As we are in unlock stage of COVID19. Even if there comes a situation where our team could not be at the place of implementation , we will be giving guidance and training to local stakeholders for further implementation of the project. So as to make our project complete.

Implementing Team*

If readily accessible, provide short profiles for each member of the proposed implementation team (IEEE and non-IEEE) that justifies how their participation will support achieving the objectives of the proposal. The profiles should explain the relevance of their expertise and previous field work experience (particularly in the beneficiary country). Please describe any previous relevant team collaborations.

Er. Anish M Jose -Branch counsellor of IEEE student branch, Assistant Professor of Electronics and Communication Department,95412652
 Anjaly Saji -IEEE SB VJCET, Chair and project coordinator, has good knowledge in IoT,96173819
 Sebin Jaison -IEEE SB VJCET, Treasurer who plans all the budget of the project and has good knowledge in solar panels,97633770
 Alen Salu -IEEE SIGHT VJCET, Chair and has good knowledge in wireless communication,96173822
 Amruthesh PS -IEEE volunteer, has a good knowledge in technical field,97632514
 Navaneeth V Nair -IEEE SIGHT VJCET Design head and has good knowledge in solar panels,97617546
 Antony Cijo - IEEE volunteer, has a good knowledge in software handling,97617588
 Dany Tomy -IEEE volunteer and has a good knowledge in solar panel implementation,98239697
 Sandra Theresa Mathew - IEEE volunteer and is excellent in project planning and documentation,97617698
 Milan K Biju - IEEE SIGHT VJCET, Vice Chair and is excellent wireless communication,96173838
 Alwin Sony - IEEE volunteer and has completed internship in IoT,97617663
 Riya Vincent - IEEE volunteer and knows basic of wireless communication and IoT,98239760
 Agnal Roy- IEEE volunteer and has completed internship in wireless communication,98240602
 Pooja Ashok - IEEE volunteer and has completed internship in Solar panels and its implementation,97617288
 Alex Sebin - IEEE volunteer and has completed internship in IoT,97617529
 Riya Benny - IEEE volunteer and has good knowledge in solar panels,96174124

Is the Implementing Team an IEEE SIGHT Group? If so, please list the name and number of your Group.*

(Please note, it is not required to be part of a SIGHT group but forming a group is highly encouraged. You can direct any questions about the formation of new SIGHT Groups to sight@ieee.org.)

Yes all the members of the implementation is part of IEEE SIGHT VJCET - SBA64351S

Describe the potential risks and unintended consequences associated with this project.*

This should include, but not be limited to, risk to people, property, and IEEE reputation. How will these be mitigated? Make sure to explain what measures will be taken to prevent safety hazards. Please be as detailed as possible. Highlight any political or economic risk associated with the country in which the project is located. The IEEE Office of Risk and Insurance Management Services (ORIMS) may review proposals to assess risk and provide guidance.

The project is undertaken in the forest area of Kuttampuzha Gram Panchayat. The backward community of Poyamankutty settlement are in dire need for a street light system to solve the difficulties associated with night travel while reaching home after work because most of the people their works for a daily wages. The people in the region offers full corporation and support to this project. The site of the project is a forest area of Kuttampuzha Gram panchayat, is observed and viewed by the project team. All training sections and workshops of the project is done taking in consideration of Covid protocols. The installations of the solar street lights are handled by implementation team after taking proper training session and supported by the technical faculties of VJCT. A forest guide accompanies the project team during each visit. A team from the forest area also provides help to the project team in transportation and other important matters. A small training section was conducted for the project team by the people in order to familiarize the with the forest and to gain apt knowledge to overcome the difficulties of weather . A major problem associated with the project is transportation expenses. We have a lot of materials of the installation of street light which has to be transported with makes transportation cost little expensive. We will have the support of the forest officials for the transportation of the resources.

Are any approvals needed to undertake this project?*

This could include approval from the local government, community entity, Institutional Review Board, and so on. If so, please include as attachments. If these approvals have not yet been secured, please explain your plan to do so.

If no approvals are necessary, please state that explicitly.

Letter from Panchayat.pdf

Starting from our institution we have collected permission letter. We have discussed the plan with the local government and they were very much impressive. They have given us the approval letter and also the lead from the community has also give us a letter. We have contacted the forest officers to explain the project. They were also supportive and helped in all ways while visiting the site. They told us that only the letter from the local government is required for the site visiting as well as implementation of our project.

We will be uploading the letter from the local government here. All other permission letters will be shared in the drive link given below:

https://drive.google.com/drive/folders/1BEpH91H8Wt7Z63zg_s6lmewwgOQfN-10?usp=sharing

SECTION 5: External Collaboration

External organizations:*

What external organizations, such as NGOs, government organizations, companies, etc., are you collaborating with? For each, please provide:

- Name of collaborating organization
- URL

Panchayath members of Kuttampuzha Grama Panchayath.

What are the roles and responsibilities of the external organizations and IEEE?*

Please attach any documentation. **Applicants are strongly encouraged to provide a letter of support from any organization with which they are working.** If there is a need for a legal agreement, please note that here.

Letter from the community.pdf

They have given us the letter from the local head to enter the tribal area.

We have all the support from the local government and the forest officers to implement the project in the location

Ensuring the sustainability and proper utilization of the project to share the benefits of the advancement of technology to the people.

Helping the project team in the impact assessment of the project.

SECTION 6: Requested Funding

IEEE AP-S and IEEE HAC prioritize support of direct project costs, including necessary equipment, materials, supplies, and travel. Travel expenses must comply with IEEE Travel and Expense Reimbursement Guidelines. Given current circumstances, travel expenses should be minimal to zero.

No reimbursement of volunteer salaries will be provided. Reimbursing the salary of anyone contributing to the project must be carefully justified. Associated salary costs should be clearly explained and not constitute any more than a minor part of the overall budget proposed.

No indirect costs will be considered for funding, including but not limited to overhead expenses, Facilities & Administrative (F&A) costs, tuition, etc.

Completed IEEE AP-S and IEEE HAC Projects Application Budget Form*

Please download, complete, and submit the IEEE AP-S and IEEE HAC Projects Application Budget Template 2021, renaming the file to Name of Proposal (or abbreviation) to avoid potential confusion.

*Awards of up to *US\$3,000 will be made to selected projects that present a convincing plan to a) understand the real needs of a local community or local stakeholder organization and b) complete in no more than six months' time a pilot project utilizing AP-S-relevant technology to address those local community challenges. (*Funding up to US\$5,000 may be approved for convincing projects on pressing issues challenging an underserved community.)*

Please check to ensure that the total amount requested in the budget is the same as the response to the question "Funding Requested in USD" earlier in this form.

Note that all amounts should be stated in US Dollars.

22-APHAC-11 BUDGET - LIGHT UP.xlsx

Budget Justification*

Please use this area to provide additional information on any budget line items that need further explanation. Do not simply list expenses. This is meant to be a narrative. Also, if your project is to be co-funded by one or more other entities, please explain whether this funding is confirmed or what your plan is to confirm it.

The budget of our project is \$4998.74 it includes IoT modules, gsm module, battery, solar panels etc and the main expenses of money is in the transportation of materials to the settlement area and the labour

charges. For setting up the pole basement we need experts who been working in this field and for setting up the pole there also skills labours must be there. The material cost and other cost like solar panel, machinery rents etc are increasing rapidly. For the entire IoT technology it requires \$1390.14. For the installation of the poles for street light is requires \$1625.18 and for the installation of solar street light it requires \$1825.27. The transportation of these materials, machinery, safety equipment's cost \$258.15. The total will be \$5098.74. \$100 will be taken from our student branch making it a total of \$4998.74

What, if any, mandatory bank fees would be incurred with a transfer of funds from HAC to the OU?

Does Not Apply

SECTION 7: Additional Information

Disclose any potential conflicts of interest regarding this proposal.*

Please note: project teams must abide by the IEEE Principles of Business Conduct. Project leads and any other members of project teams with decision-making authority must complete the Principles of Business Conduct/Conflict of Interest disclosure prior to receiving funding.

Project team members are abide by the IEEE Principles of Business Conduct and we here attach the link to the drive containing our disclosure.

https://drive.google.com/drive/folders/1iQ3EsCoszF0anR135UN_v9OAMjshhxZ0?usp=sharing

Videos and/or Photos:

HAC encourages the submission of videos and/or photos that introduce the project team, demonstrate the need identified, or explain the technological solution to be implemented.

LIGHTUP.mp3

Here is the link to the Video of introduction of our team members in good quality.

<https://drive.google.com/drive/folders/1-zD9p8Mrx4xM540j6RB20lzEOM10aYeM?usp=sharing>

Any supplementary materials that further demonstrate worthiness of the project

Could include photos, videos, publications, letters of community support, etc.

Allowed File Types: doc, docx, pdf, mp3, mp4, avi, mov

SURVEY REPORT LIGHT UP.docx

A survey report of the area is attached here.

Also the photos of the community is attached is the below drive link:

https://drive.google.com/drive/folders/1W4RzMnxlp_kM1g2bl_YNJ1aIgWYHd1FJ?usp=sharing

Proposal Submission

By signing this application, I confirm that:

- A. all team members named in this proposal consent to this application being signed on their behalf;
- B. all individuals and organizations named in this proposal have consented to either participate in or cooperate with this proposal as presented should it be selected for support;
- C. to the best of the proposers' knowledge, this proposal is aligned with national policy in the country or countries where project activities will take place, and the proposers will ensure that any necessary ethical approval will have been secured before IEEE AP-S and IEEE HAC funds are released;
- D. Any proposal which (i) is incomplete, (ii) does not utilize AP-S-relevant technology, (iii) requests less than US\$500 or more than US\$3,000 (more than US\$3,000 may be considered for convincing projects), (iv) has a primary applicant with an ongoing or incomplete AP-S or IEEE HAC Project, or (v) for which a completed IEEE AP-S and IEEE HAC Projects Application Budget Form is not submitted will not be reviewed.
- E. All proposals must disclose if an identical or similar proposal is currently under evaluation for funding elsewhere.
- F. the proposers individually and collectively indemnify IEEE, IEEE staff, IEEE AP-S, the IEEE Humanitarian Activities Committee and IEEE HAC Projects Committee members from any liability associated with review of this proposal or subsequent implementation of their project;
- G. the proposers individually and collectively acknowledge that any decision by IEEE AP-S and IEEE HAC Projects as final;
- H. I acknowledge that the information provided on this form will be processed according to the **IEEE Privacy Policy**.

SIGNATURE*

(On behalf of all named proposers – please sign by typing your full name and IEEE Member number)

ANISH M JOSE 95412652

DATE OF SIGNATURE*

02/28/2022

File Attachment Summary

Applicant File Uploads

- 22-APHAC-11 MATRIX - LIGHT UP.xlsx
- Letter from Panchayat.pdf
- Letter from the community.pdf
- 22-APHAC-11 BUDGET - LIGHT UP.xlsx
- LIGHTUP.mp3
- SURVEY REPORT LIGHT UP.docx

IEEE HAC/SIGHT Project Assessment Matrix 2021

PROJECT NAME: LIGHT UP - Spread Light In Darkness

OBJECTIVE: To set a smart street light system works on solar energy which uses IoT network and connected using wireless communication.

<i>Internal Project #</i> 22-APHAC-11	INDICATOR	DEFINITION <i>How is it calculated?</i>	BASELINE <i>What is the value at project inception?</i>	TARGET <i>What is the target value?</i>	ACTUAL <i>Value at project close.</i>
OUTPUT: Increased access to renewable power	Number of solar panels installed at the end of the project	Total number of signals contracts for the solar panels	0	1.5	
OUTPUT: Solar power rechargeable batteries	Number of solar powered batteries adopted by the community increases by the end of the project	Total number of signals contracts for a new solar powered battery	0	7	
OUTPUT: Safety at night	Total estimated number of solar panels implemented to provide safety in night	Calculated on the basis of total estimated of families living with a total margin of 280 families	0	250 families	
OUTCOME: Constant monitoring the activites	Calculated on the basis of 10T programming which constitutes of total working and technical aspects of the project	Calculated on the basis of data recoverd and to inspect and develop better program for prolificent working	0	250 families	
OUTCOME: Awareness of newer technology to the youth	To provide more in depth knowledge in newer technology to the youth	Calculated on the basis of people obtaining knowledge in depth about newer technology	0	80 students	

IEEE HAC/SIGHT Project Assessment

PROJECT NAME:

OBJECTIVE:

<i>Internal Project #</i> 22-APHAC-11	DATA SOURCE <i>How is it measured?</i>	FREQUENCY <i>How often measured?</i>	RESPONSIBLE <i>Who measures?</i>	REPORTING <i>Where is/was it reported?</i>
OUTPUT: Increased access to renewable power	From the database of IOT based program implemented in the street light and via panchayat	Midway of the project	Project Team	To project team,HAC Projects Committee and HAC Assessment Committee
OUTPUT: Solar power rechargeable batteries	Measured by considering the capacity of battery and power consumed by the streetlight via solar energy	Midway of the project	Project Team	To project team,HAC Projects Committee and HAC Assessment Committee
OUTPUT: Safety at night	From panchayat and data source from IOT program	Project close	Authorities	To project team,HAC Projects Committee and HAC Assessment Committee
OUTCOME: Constant monitoring the activities	From IOT based program	Project close	Authorities and community people	To project team,HAC Projects Committee and HAC Assessment Committee
OUTCOME: Awareness of newer technology to the youth	Panchayat and school student records	Midway of the project	Project Team	To project team,HAC Projects Committee and HAC Assessment Committee



VISWAJYOTHI COLLEGE OF ENGINEERING & TECHNOLOGY

(Approved by AICTE, Affiliated to APJ Abdul Kalam Technological University, Kerala)

Vazhakulam P.O., Muvattupuzha, Ernakulam Dist., Kerala, India - 686 670

Ph: 0485 2262211, 2262244, 2262255, 2262977, Fax : 0485 2262211

Web : www.vjcet.ac.in E-mail : vjcet@vjcet.org, vjcvklm@gmail.com



All B.Tech Programmes (CE, CSE, ECE, EEE, IT & ME) Accredited by NBA

25-02-2022

To
The President
Kuttampuzha Grama Panchayath
Kuttampuzha, Kerala

Sir,
Sub: Request for the permission of a technical project.

IEEE Student Branch of Viswajyothi College of Engineering and Technology, Vazhakulam, along with the guidance of the members of Kuttampuzha Grama Panchayath, have go forth the project "LIGHT UP - Spread Light in the Darkness". This project will include the implementation of Smart Street Light System at Pooyamkutty Tribal Settlement Area and improve the quality of their life. The entire process of the project implementation will be done by the project team members of IEEE SB VJCET.

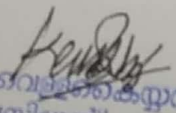
Kindly grant us the permission to implement the above mentioned project as early as possible.

Thank you

With Kind Regards,




Principal


കാത്തി വെള്ളക്കുന്ന്
പ്രസിഡന്റ്
കുട്ടമ്പുഴ ഗ്രാമപഞ്ചായത്ത്
ഫോൺ: 0485-2588222

The student members of IEEE SB VJCEET Vazhakulam was about to set up the project at Pooyamkutty Settlement area at Kuttampuzha Panchayath. The project intended to provide an smart street light system to remove their insecurity by brightness. They have contacted us in phone calls and listened to all the problems faced by us. After that they visited our area and conducted a detailed survey on the issues. They decided to set up a smart street light system so that in the night it will help us to walk through the locality. They have checked all the technicalities for the implementation of the project. The permission and all the support has been given and I gave my word to ensure the sustainability for the same.



Fo. Kuriakose Kannampalliyil

Vicar
St. George's Church
Pooyamkutty.

EEE Antennas and Propagation Society and IEEE Humanitarian Activities Committee (AP-S and HAC) Projects Application Budget Form 2021

DATE: 28-Feb-22 [Date you submit Grant Application - DD MM]

PROJECT ID #: 22-APHAC-11 [OFFICE USE ONLY]

PROJECT TITLE: LIGHT UP - Spread Light In Darkness [Insert the same title as the one on your Grant Application.]

Enter details and amounts in the appropriate columns. **All amounts must be shown in US Dollars.**

Funding Received or Expected from other sources	USD Amount	Funding Amount Requested from AP-S and IEEE HAC	USD Amount
	\$ 100.00		\$ 4,998.74

FUNDING RECEIVED or EXPECTED from OTHER SOURCES

EXPENSES

List the details of other funding, income or resources expected or received:		List and Group ALL Project Expenses	Expenses to be Paid from AP-S & HAC Grant (in US Dollars)	Expenses to be Paid from Other (in US Dollars)
Source of Funding/Resources	Amount/Value			
FROM SB FUND	\$ 100.00	SOLAR PANNEL FOR IOT CONNECTION	\$ 251.75	
		EA SWITCH GSM MODULE	\$ 548.25	
		BATTERY	\$ 256.41	
		CURRENT SENSOR TO DETECT LAMP FAULT	\$ 37.30	
		BUCK CONVERTOR MODULE	\$ 13.05	
		ANTENNA	\$ 13.99	
		LABOUR CHARGE IN IOT INSTALLATION	\$ 46.62	
		WEATHERPROOFING ENCLOSURE	\$ 231.23	
		POLE	\$ 820.51	
		MACHINERY	\$ 39.96	
		PIPES AND FITTINGS	\$ 186.48	
		PIT LABOUR CHARGE	\$ 11.89	\$ 100.00
		POLE BASEMENT	\$ 466.20	
		SOLAR PANNEL FOR LIGHT SOURCE	\$ 433.56	
		BATTERY BOX	\$ 83.92	
		BATTERY	\$ 519.34	
		WIRING	\$ 93.24	
		LED LIGHT 40W	\$ 200.46	
		SOLAR CHARGING CONTROLLER	\$ 405.59	
		PIPE AND FITTINGS	\$ 79.25	
		TRANPORTATION OF MATERIALS	\$ 199.80	
		SAFETY EQUIPMENTS	\$ 33.30	
		TOOL KIT AND OPERATIONAL MANUAL	\$ 26.64	
Funding requested from AP-S and IEEE HAC	\$ 4,998.74	Total Expenses to be allocated to AP-S and IEEE HAC Grant	\$ 4,998.74	
Funding requested from Other Sources	\$ 100.00	Total Expenses to be allocated to Other Sources of funding		\$ 100.00
Total Project Funds Requested	\$ 5,098.74	Total Project Expenses	\$ 5,098.74	

SURVEY REPORT LIGHT UP

We IEEE SIGHT volunteers under the guidance of counsellors, local government authority officials and forest officers visited Forest Area of Pooyamkutty Settlement Area Kuttampuzha Grama Panchayath. Kuttampuzha panchayat is a tribal colony with around 250 families with a population of 590 including 80 number of students. Survey was conducted to know the lighting facilities available among the rural people. Even though India is one of the world's fastest growing economies, the growth is not visible in many rural communities when it comes to basic necessity especially lighting. In India, there are many causes of inequality but the main causes are poverty, gender, religion, and cast. Lack of better transportation, steady electricity, water supply and lack of vicinity of educational institutions are analysed in detail. It is an irony to point out that amidst all the development indices like urban development ie, metro, sky-city, smart-city etc, the tribes of Kuttampuzha colony, are marginalized and kept away from all the mantras of development. The socio-economic and educational deprivation that they face is exposed in detail elsewhere. Majority of people in kuttampuzha are either daily wage workers at the local level or outside. But due to lack of education, lack of skill in wage work and lack of technological modernization in farm work; they are not capable enough to come out of the trap of poverty and backwardness. They undertake agriculture, small wage works and daily survival without the availability of modern-day technology. It is our responsibility to improve lifestyle of these rural people. Lighting is a basic necessity that need to be considered with a very high priority .Thus we decided to provide them with smart street light system.





Location Pics were we plan to implement the Project

DATA AND METHODOLOGY:

The data for the survey was collected through two phases – primary and secondary ways. Primary data include that there are 250 families a total 590 population among them 80 are students. Through various interactions with people in that locality, the ministry of human resources, and the backward community it was found that these people face difficulties such as illiteracy and lack of education poverty, exploitation of labour, non-representation in services and untouchability, women’s safety, denial in the government services, transportation difficulties. Most of the people in that locality work for the daily wage so they reach their home very late. These areas have so many pocket roads which are dark and unsafe for traveling especially for women and children. Therefore, we the student volunteers of IEEE SB VJCET brings up the project *Light up “Spread light in the darkness”*

This project is mainly establishing smart streetlights system by using IoT (internet of things), wireless communication. As it is working with the help of IoT lights can be monitored by their amount of work, the energy produced by solar, its lifetime, etc. After the implementation of this project, the insecurity faced by the localities will be reduced. As these lights are produced through solar energy there will not be any issues in the case of electricity and antennas will be placed in case of network instability.

The locals of Pooyamkutti settlement area are confronted with many challenges and difficulties when it comes to their daily life which

1. Land alienation
2. Lack of skilled job
3. Education
4. Lack of transport and communication
5. Health
6. Denial of government services.

Among these lack of transport and communication facilities is one of the major problems faced by them as it intensify their alienation and accessibility to other resources. Other than this it is a necessity to ensure safe and secure path through the forest for both the locals of Pooyamkutti as well as the outsider, in case of emergency situations. A major fraction of the locals of Pooyamkutti are daily wage workers who have to commute daily through this remote forest. Hence, the installation of fully automatic street lights is going to make a remarkable change in their lives.

Pooyamkutti, being a remote area, its locals are deprived of basic living standard. When the world is running for flying cars and digital currencies, people here do not even have an idea about basic technologies. So this is one way in which technical knowledge of the locals can be improved. Also, the youth in this area would also be inspired by these fascinating technologies which can eventually lead to the overall technical growth in the area. Lack of skilled workers being a problem in this area, our team can conduct a training session regarding the technologies used in this project if the locals are interested.

Light up is a crucial project for the people of Pooyamkutti as it is going to make some remarkable changes in their daily life and technical knowledge. The design and idea of the project was discussed with the local administrators and forest officers of the region and they were so impressed and interested in this. Besides that the locals of Pooyamkutti were absorbed by this idea as this is something crucial for their day-to-day life. The natives of pooyamkutti have always been an alienated backward community. We believe we can impact the life of the people of Pooyamkutti by project light up and refine their lives.



Location of Pooyamkutti,Kuttampuzha