

Topalang Ges Unitary Enterprise

Abduraxmonov Aziz Mahmud o'g'li

Student of Termez Institute of Engineering Technology

Do'stmurodov Jahongir

Software Engineer, Topalang HPP Unitary Enterprise

Annotation: The theme of the project "My idea": Modern methods of road lighting *Our project focuses on the use of wind and solar energy in the social and service spheres of life*

Keywords: phototrophic cyanoprocaryotes, blue-green algae, genome, colony, heterocystic forms, ecosystem, phytogeographic.

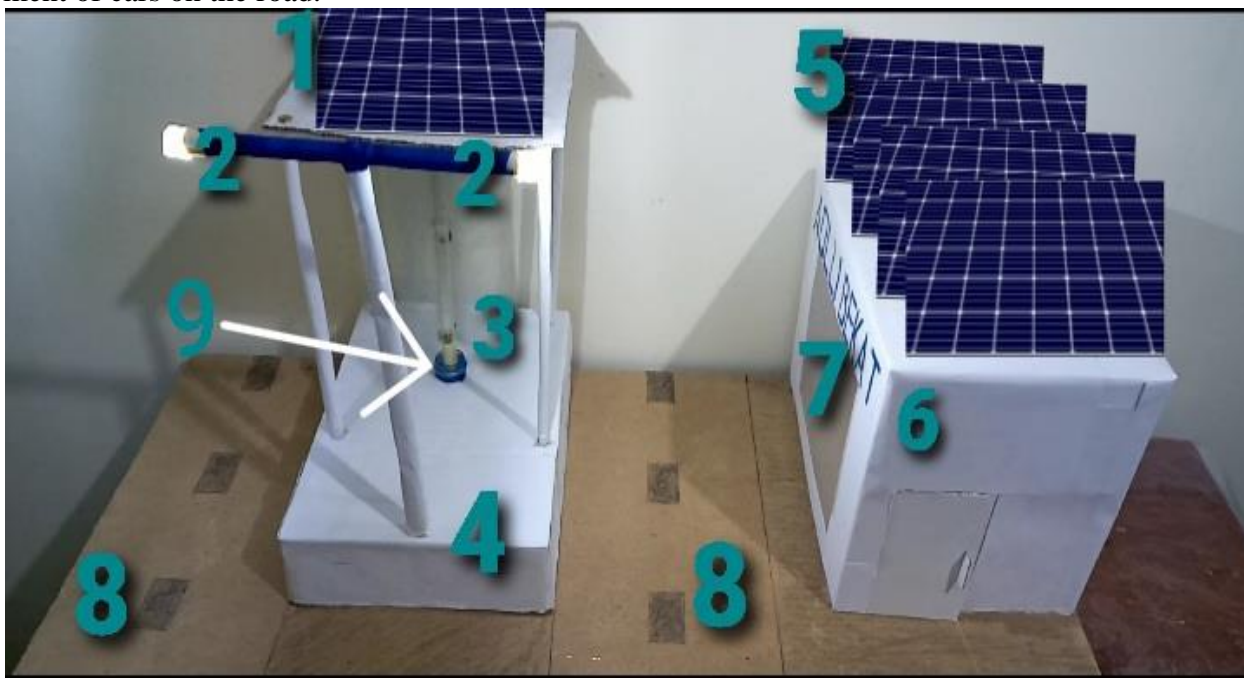
The theme of the project "My idea": Modern methods of road lighting

Our project focuses on the use of wind and solar energy in the social and service spheres of life

Our country is one of the most favorable regions in the world for the development of solar energy. In Uzbekistan, sunny days last from 2,200 to 3,000 hours a year. During this time, solar energy will increase from 1,200 to 1,700 kilowatt hours per square meter next year. This indicates that solar radiation is equal to Portugal's, or twice as high as Japan's, which has a decent share of the country's fuel and energy. Uzbekistan's renewable energy potential is 51 million tons of oil equivalent. If the technical potential of renewable energy sources is fully used, it will be possible to eliminate about 450 million tons of carbon dioxide (carbon monoxide) emitted into the atmosphere. Today, the basis of energy resources in our country are hydrocarbons: natural gas and oil. Total energy capacity In the last 10 months of 2020, the country generated 48.5 billion kWh of electricity. Our country accounts for 50% of the capacity of the Central Asian integrated energy system. The total solar energy potential of the country is 50973 million tons, and the technical potential is 176.8 million tons. However, only 3% of solar energy is currently used.

The project can be used to illuminate 210 km of the Denov Tashkent highway through Boysun district of Surkhandarya region and the Topolon reservoir to the center of Sariosiya district, 32 km, and the nearest highway to Termez Dushanbe road - 25 km. We use wind and solar energy to modernize these roads. The project can be implemented to illuminate the area of the Topalong HPP cascade with lights, provide surveillance cameras and surveillance instruments with electricity.

This project is designed to generate energy and use solar modules as a result of wind flow from the movement of cars on the road.



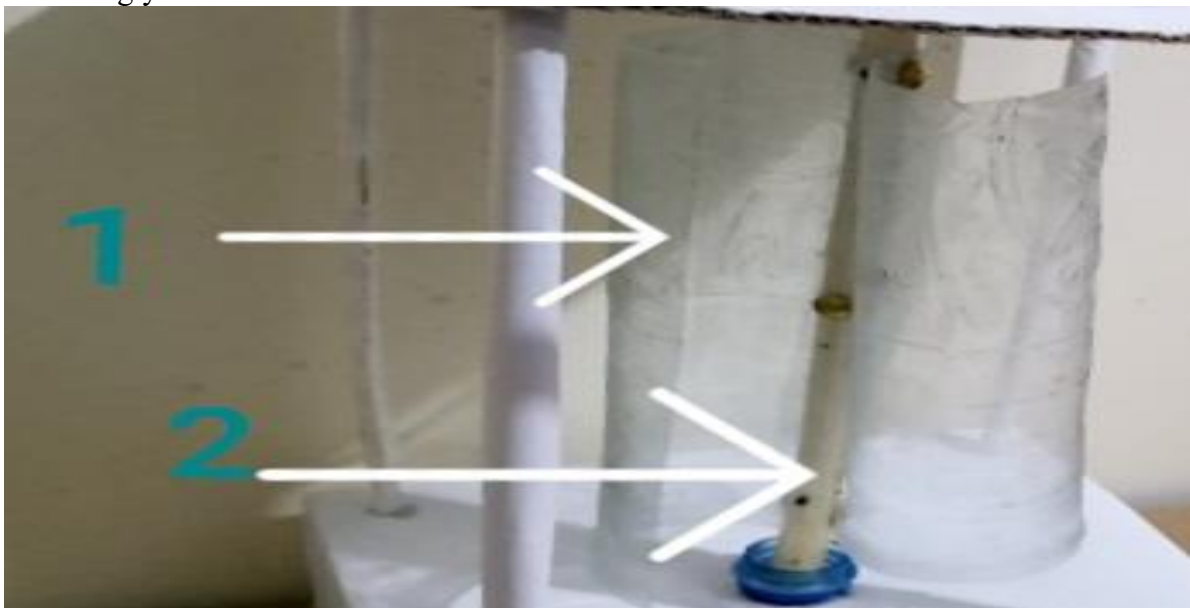
- 1) Shamol generatori qurilmasi ustidagi Quyosh panellari;
- 2) Ko'cha yoritgich chiroqlari;
- 3) Shamol parragi;
- 4) Qurilmaning ostki qismi(ichki sxemasi);
- 5) Mazkur loyihada ishtirok etgan Aqlli bekat binosi ustidagi quyosh panellari;
- 6) Aqlli bekat binosi;
- 7) Aqlli bekat ichki qismi(bekat ichiga yoritgich chiroqlari o'rnatilgan);
- 8) Avtoyo'l;
- 9) Shamol parragining yuqori va pastgi asoslari(pachimlikka biriktirilgan).

Loyihani kengroq tahlil qiladigan bo'lsak, shamol generatori parrakalari mashinalar va davriy shamol harakati natijasida ishga tushib energiya ishlab chiqaradi. Quyosh panellari esa Quyosh nuridan energiya olish uchun o'rnatilgan bo'lib, bu ikki qayta tiklanuvchan energiya manbalari mazkur holatda bir-birini to'ldiruvchi hisoblanadi. Shamol bo'lmaganda Quyosh panellari energiya bilan ta'minlasa, tungi vaqtlarda shamol generatori energiya bilan ta'minlaydi. Chunki Aqlli bekatimizni kun-u tun energiya bilan ta'minlashimiz zarur. Aqlli bekatning asosiy iste'molchilari yoritgich chiroqlari, muzlatgich, konditsioner hisoblanadi. Ushbu loyihamiz bitta bekatni to'liq energiya bilan ta'minlaydi. Quyosh panellarining 1 metr kvadrati o'rtacha 100\$ va bu paneldan 10 yil foydalansa bo'ladi. Bu esa ancha qulaylik yaratadi. Umuman olganda qayta tiklanuvchan energiya manbalaridan foydalanish hozirgi kunning dolzarb masalaridan biri hisoblanadi. Negaki, tabiiy resurslarning zaxirasi cheklangan ham ular tabiatni katta miqdorda ifloslantirmoqda. Ushbu energiya turlari zararsiz, tekin va qayta tiklanuvchidir.

- Bu rasmdagi 1- holatda shamol generatori parragi tasvirlangan.

2-holatda generator vali tasvirlangan.

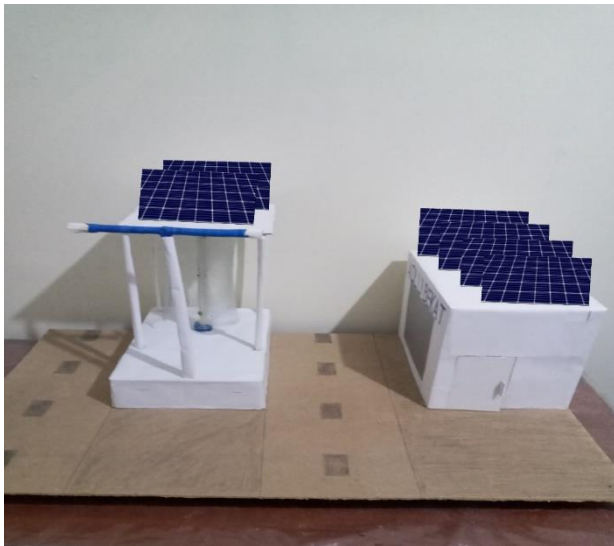
Shamol parraklarni aylantirganda val aylanib qurilma tag qismida joylashgan generatorni harakatga keltiradi va energiya hosil bo'ladi.



In the picture, there is a switch on our model, the black one belongs to the wind vane and the red one belongs to the light bulbs.



Overview of the project!



References:

Chan, Hoi Ling Anne. *Tracing a Sense of Place from Urban Heritage Landscape: Case Study in Yau Ma Tei*. Diss. Chinese University of Hong Kong, 2010.