

MULTI-POWERED TRANSPORTATION SYSTEM FOR GENERATION OF GREEN ENERGY AND OXYGEN

M. Sai Charan¹, K.V.S Ravi Teja², P. Sushmita³, O. Naveen Sai⁴

^{1,2,3}B.Tech – Dept of ECE, Dadi Institute of Engineering and Technology, Anakapalle

⁴DME – Dept of Mechanical Engineering, Aditya Engineering College, Surampalem

ABSTRACT

The basic idea behind this paper is the review on the basis of energy consumption by automobiles. Non-renewable sources are being consumed to their limits and also pave a path for the global warming. It has been seen that 80% of these fuels are consumed only for transportation. Many ways have been found to reduce the consumption of these fuels such as solar power, wind power, tidal power which are most efficient and unlimited for energy production. These efficient energy factors can be used in transportation and the energy production at the same time in a vehicle known as multi-powered transport. This paper mainly reviews about the use of multi-powered transport in all the energy resources around it and at the same time with high efficiency and least damage to the environment.

I. INTRODUCTION

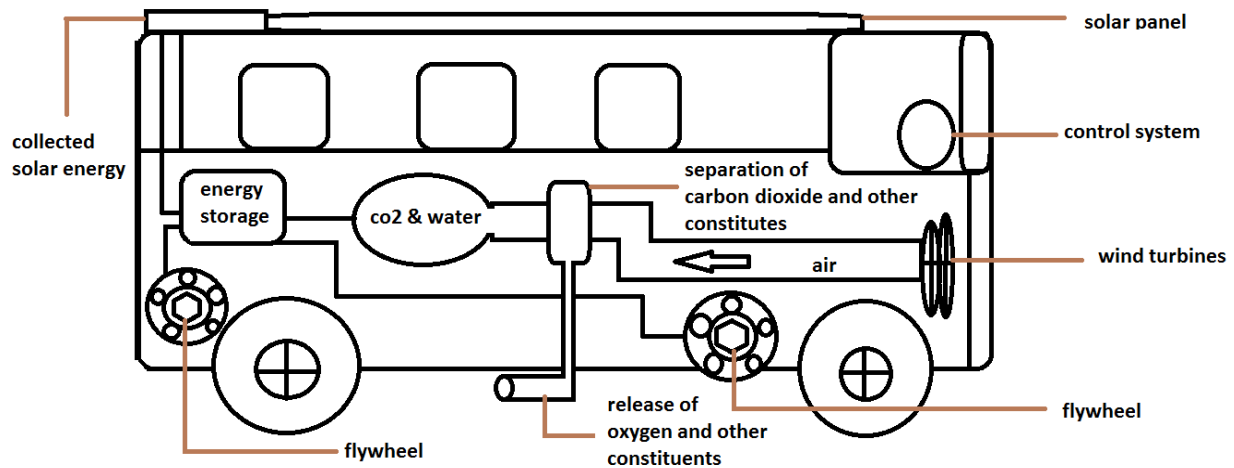
The first and foremost thing to be done is, the ceasing of transportation which are running on fuels such as petrol, diesel, kerosene etc. The only way to avoid the usage of these fuels is to run these vehicles on electric energy than being run on combustion of fuels.

So the main challenge lies here is, the resources from which such huge amount of electricity to drive these vehicles can be obtained. Many companies had made their way in manufacturing of electric cars, trucks. But however there is some problem which is main drawback of electric vehicles. It is nothing but their efficiency. They are unable to provide more efficiency than fuel based vehicles. Simply it means that the car which runs on electricity which is stored up in the battery cannot travel much further distance than a fuel based vehicle. So that's the main conflict which is raised in a electric vehicles.

The solution for this is that these vehicles should be able to generate the electrical energy to store up using some external factors which are not limited and can be obtained at any point. Such factors are noting but solar, wind and water.

When a vector can use all these factors and also other factors (which are discussed below) in a unique way i.e., multi-powered transport/vehicle, then the energy production will be surplus and more efficiency can be obtained than a fuel based vehicle. The use of these factors is explained below.

II. PRODUCTION OF ENERGY IN MULTI-POWERED VEHICLE



Model of a multi-powered transport

III. SOLAR ENERGY

Solar energy which is the most popular way of energy production both efficiently and ecologically. Multi-powered vehicle will use this solar energy with solar panels covered all over its surface. When the vehicle is not moving this is the only major source which it can obtain from its surroundings. It has inbuilt system which measures and stores up the solar energy in high-storing capacity batteries and use it wisely. It also prevents any waste usage of energy by using power saving mode.

IV. WIND ENERGY

This is the main source used by the multi-powered vehicle in a unique way. As it is known that the usage of the non-renewable fuels/combustion of fuels would result in the emissions of carbon dioxide (CO₂), carbon monoxide (CO) which is quite harmful to the environment and also cause green house effect, which ultimately lead to global warming. It is fact that on an average six tons of carbon dioxide is being released by only cars into the atmosphere per year. This is one of the ultimate reasons for the pollution of atmosphere.

So to prevent this multi-powered vehicle is designed to use the wind energy in two ways;

4.1 Wind Turbines

As the name itself implies that, when the vector is in moving position, a huge amount of wind energy can be collected, the turbines are presented at top or front positions of the vehicle where the turbines can be rotated at huge speed for the generation of the energy. When the car/vector is moving at high speeds more amount of energy can be generated. At the same time it can also use the solar energy.

The main cons is that it cannot be able to use the wind energy at static position compared to that of moving position. But as for that solar energy can be used in any position as long as it is not night time /dark day (rainy day).

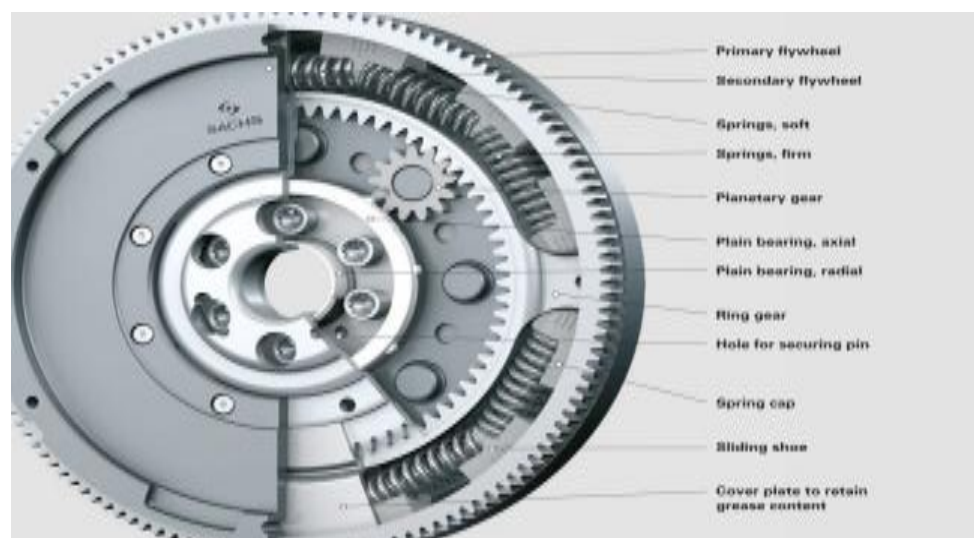
V. CARBON DIOXIDE AS FUEL

This section contains the unique feature about the multi-powered transport, it was discovered recently at BERT HAMELERS center for water excellence at Netherlands, reported that carbon dioxide when flushed through water in presence porous electrodes the current had build up undergoing some reactions. This same phenomenon can be used in a multi-powered transport, the air after flowing through the turbines, through a mechanism it is separated into carbon dioxide and other air components such as oxygen, nitrogen, argon gases. Only carbon dioxide is absorbed and remaining components are ejected into the atmosphere. This carbon dioxide is made to flow through water and which results in the production of energy or current.

Here the multi-powered transport not only develops the current but also result in the emission of oxygen instead of carbon dioxide as in a fuel based transport. So it can be defined as eco-friendly transportation which would be the implementation of major counter for the global warming.

VI. CHANGING BACK THE ROTATIONAL ENERGY INTO ELECTRICAL ENERGY

In this paper, the discussions have made quite in a logical way. When the vector is moving the torque can be seen in the wheels, if this torque or rotational motion can be changed back to induce *EMF* it could be also used as energy source. For this we can use a flywheel which is used in supplying continuous energy to intermittent energy source. If this can also be applied in a multi-powered transport then it can increase the efficiency to the further level. This can also be used to store the energy due rotating torque and can be used in the applications of multi-powered vehicle.



VII. TIDAL ENERGY

Not last but the least, tidal energy can also be used in a multi-powered vehicle. But the fact is this energy can't be used by land vehicle. They can only be used in water-ways, even ships, cruiser are also the main cause for pollution in sea and air. The tidal energy can be generated in many ways such as tidal stream generator, tidal barrage, dynamic tidal power and tidal lagoon. The ships is available of all sources such as sunlight, wind, tidal energies. Still it need huge amount of energy to rotate the propellers which may or may not be satisfied by these sources. So it has low chances of assumption to generate energy without any amount of fuel.

VIII. EXTERNAL ENERGY SOURCE:

Multi-powered transport doesn't completely depend on these natural sources but also allows the owner to recharge by any external source means that can be directly connected to electric supply in-case it is needed or unavailable of the natural resources.

IX. MULTI-POWERED TRANSPORT

9.1 Automobiles (Cars, Trucks, Buses)

Automobiles are the main source of transportation for everyone. As it was discussed earlier only the carbon dioxide released from cars is 6 tons per year so it should be the one to be used as multi-powered transport. If implementation of these automobiles as multi-powered transport becomes a reality then we can assure of ourselves that we could prevent global warming and other climatic changes in the future years to come. There are only 50% of chances for it but due to advancement of technology there is still a chance to happen.

9.2 trains

Trains are also important sector for the transportation. In this modern era almost every train is running on the electricity, they need huge energy to work. For trains there is availability of wind power at higher rates as they move at higher speeds. In INDIA already some measures have taken and are using solar panels to supply the electricity into the compartments. Similarly we can also use the wind energy to rotate the turbines which can be used in energy generation. In the recent years 16000 giga watt per hour of energy is consumed by Indian railways. So implementation of this multi-powered project may lead to increment in both economically and ecologically towards nation .

9.3 Airplanes

Recently solar impulse had made an aircraft which runs on solar power, the solar panels are equipped to the wings of the airplane. It was filed for 24 hours depending only on the solar energy. This is an example for good use renewable energy. Wind energy can also be used in airplanes but it could interfere with the aeronautical designs. Implementation of multi-powered project to air plane is quite a difficult thing. It may take many years for that to become reality.

X. CONCLUSION

Finally this paper concludes that this ideal multi-powered vehicle can be the wheels of the future to protect the environment and prevents the drastic change in climate. Already some companies have started the project which are powered with both solar and wind. But still if usage of these sources made more effective i.e., multi-powered vehicle then a new revolutionary change can be obtained in the world of transports.

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