

Future of Electric Vehicle

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Abstract—World is changing continuously. We are also changing continuously. The speed of generation is fast and for obtaining that speed we have to do some major changes to sustain the situation for future. In today's world we are using conventional sources as main source of energy, but from last few years we were also aware to use non-conventional sources as a main source of energy. We are using millions of vehicles which were running on conventional systems (Petrol, diesel, Gasoline etc.) but thanks to Mr. Elon Musk who have invented and implemented Tesla Cars for production. We all know that future of Vehicles will be electricity for that reason only we are going to some experimental preparation to achieve some result on Electric Vehicles.

Index Terms—Conventional and Nonconventional energy, Tesla, Electric Vehicles

I. INTRODUCTION

As we all know from last few years there are tremendous changes has occurred in the automobile industries related to the engine. Firstly we do have complete electric motor engine, which was good but cannot able to maintain its efficiency at its highest. Then after some years we do have Hybrid engines, where the electric motor was coupled with petrol engine which will further used to improve its efficiency and some power outcomes. This type of engine is very popular nowadays. Many vehicle brands are using this type of technology for getting best outcomes form it. Basically in this type of engine petrol engine and electric motors are tied up with each other. This coupling result into better performance. With this type of hybrid engine, our vehicle can push its limit at highest. This type of engines are comes with drive mode selection by which we can select operation of engine and motor. For example in Maximum power mode both motor and engine acts together.

After this type of engine we do have another type of engine that is completely Electric Engine. This engine runs only on electric motor. Depending on the size of the vehicle the quantity of electric motors are designed. General two motors are used. This type of engine is uses in the Tesla Vehicles.

II. MAJOR IDEA

In this project we are going to develop the vehicle which is self-charging and with self-driving modes. For developing such type of vehicles there are some key points which has been required to discuss;

A. Weight to Acceleration

For designing any vehicle this is the main topic which has

been discussed many times. For development of this we are going to reduce weight of a vehicle by using carbon fiber in the construction part and Super capacitor for the storage of electricity. Both the quantity Weight and Acceleration depends on each other if weight is high then acceleration will be minimum and if weight is low then acceleration will be maximum.

B. Storage Technology

For this we are going to use combination of super capacitors which is having better charging and discharging cycle then any battery. This type of battery storage will have very less weight which results into better performance.

C. Generation

For this point we are using full size solar panel on the roof of our vehicle which will generate the electricity required to charge our vehicle. Also we will try to use a tunnel wind generation form the side skirts.

D. Capacity

We are designing our system for the max capacity ranges form 150-200 KMPC. For achieving this we have to maintain all parameters like weight of vehicle, speed, advance assistance etc.

III. SYSTEM REPRESENTATION

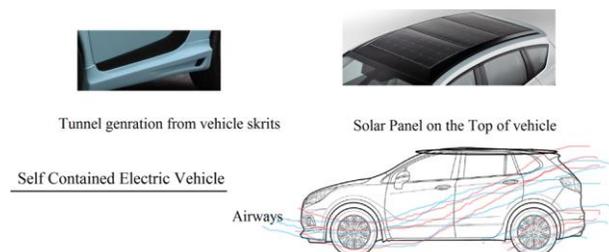


Fig. 1. Self-contained electric vehicle

Above representation is showing only the key points which we are going to mainly introduce into electric vehicle. These Changes will help us for making self-contain electric vehicle. Form this type of construction we can able to achieve better amount of electric vehicle, this means that we are trying to minimal the use of charger for the vehicle. This vehicle will charge by itself. It does not required charger for charging the super capacitor. This vehicle also gets an automatic self-drive mode for autonomous operation during our journey.

Advantages:

1. Pollution free operation.
2. Silent working.
3. Free source of energy.
4. Zero Noise production.
5. Increased Mileage then other electric vehicle.

Disadvantages:

1. High Initial cost.

IV. CONCLUSION

We are in the development of such vehicle so cannot able

conclude it at this point. This research will definitely makes the change in the different automobile sector. We are mainly focusing into cost effectiveness for the consumer. Because you know that cost of these types cars are much expensive then basic cars.

Hence in the conclusion we can say that we are about to make cost effective electric vehicle for our better future.

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