

## Bio-Electric System (B.M.Jogani, GECR) 2020

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**ABSTRACT:** Among renewable and regenerative energy is one of the most promising and eco-friendly energy which is used in bio-electric system vehicle. This paper propose to showing fault of diagnosing in hybrid vehicle. Hybrid vehicles carry fossil fuel to run vehicles. This system can be employed ranging from automobile to aerospace industry. BES can be cheaper to run and also maintain to other vehicle system like as compare to hybrid vehicle. BES contain eco-friendly source to maintain vehicle as usually used CH<sub>4</sub> and lithium-ion battery to operate BES car. Overall efficiency of BES car is greater than fossil fuel operate car.[1]

### I. INTRODUCTION

We will discuss about BES. This topic was chosen because I always interested in future technology. In this research paper, the actual effect of BES vehicle to the environment will be examined thoroughly. Research paper will provide solution of negative effect affect on environment. I will also searching for alternative source of power for automotive vehicle and finding a new design sustainable for this environment. BES is only one way to produce mechanical energy from thermal energy. It is cheaper system as compare to other system.[2]

### II. METHODS

There are mainly three part of BES vehicle

1.bio gas[3]

2.seebeck generator

3.storage source[2][4][5]

biogas-Here we consider methane as bio gas. It is not compulsory you can use any flammable gas. They produce thermal energy by a little spark .in generally A bio gas tank (CH<sub>4</sub>) used in BES vehicle.[3]

seebeck generator also called a thermoelectric generator. It is device which produce electric energy from thermal energy.

Battery are used as storage source. It store the power which is produced by thermoelectric generator. Here we use a lithium-ion battery in based in car[2][4][5][6].

This are mainly component to operate BES vehicle. Here we combined renewable and regenerative energy to run BES.

### III. RESULTS

Here results depended on variant which one you will carry. It's also depends on battery capacity. We have 60 to 100 kWh battery in different and individual variant. You can see below different variant of BES car

75 kWh------(270 MJ)-----249-259 mi (401-417 km)

85kWh------(310MJ)-----253-272 mi (407-438 km)

90 kWh------(320MJ)-----270-294 mi (435-473 km)

100kWh------(360MJ)-----315-350 mi (507-595 km)[6].

### IV. CONCLUSION

The progress of use of regenerative and renewable energy has been in recent years is not extremely welcomed but highly necessary in global warming effect and greenhouse gas levels. In this research paper contain to prevent to die our plant and prevent pollution of the environment. Benefit of BES based car is that cheapest way for human being and safest for environment and also decrease use of fossil fuels on vehicles therefore human being will decrease digging upon earth surface to get petroleum.

### REFERENCES

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