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Survey Paper on Future of Electric Vehicle and Its Charging Methods for Environment Protection

Sarika Satpute[1], Baburao Gurjar[2], Swati Joshi[3], Priyanka Mahajan[4]
[1, 2, 3]*Assistant Professor,* [4]*Technical Assistant, DY Patil Institute of Engineering Management & Research, Pune*

Abstract: ***At present we are doing a lot of damage to the environment. Therefore we should produce and consumethings that are environmentally friendly. This is one of the manufactures of electric vehicle. Electric vehicle are a substitute for petroleum vehicles. And the use of this can bring the environment under control to a great extent. Many countries are implementing this technology and contributingto the protection of the environment.***
Keywords: Transmission Drive Shaft, Throttle

I. INTRODUCTION

The environment is polluted due to innovation and sources of pollution. There is a need to reduce global warning and carbon emissions. Carbon emission from vehicle amount fora typical passenger vehicle is metric tons year. Therefore, electric vehicle have proved to be a tool. And its impact on the environment has proven positive. The customer benefits from this technology. By 2022 there will be 127 different fully battery – electric car models available for purchase in the United States.[5] Electric vehicles have gained significant popularity over the past few years are they are generally believed to be a 'greener' solution compared to their gasoline peers.

II. LITERATURE SURVEY

We have referred following papers to get an idea about the domain. So, the knowledge we have extracted is:
In this paper, For a perfect charging facilities system is an important guarantee for the rapid development of electric vehicles, and charging facilities planning is an important part of the development.[1]
In this paper, describe on EVs attract buyers with benefits including energy efficiency and environmental friendliness. As EV usage grows, more public spaces are installing EV charging stations. The methodology presented here was time-and cost-effective, as well as scalable to otherorganizations that own charging stations.[2]
In this paper, discuss on presents a comprehensive review and evaluation of various types of electric vehicles and its associated equipment in particular battery charger and charging station. A comparison is made on the commercial and prototype electric vehicles in terms of electric range, battery size, charger power and charging time.[3]
In this paper, introduces the domestic and foreign research status about electric vehicle charging station, puts forward three-level network structure about electric vehicle charging station system based on smart grid, discusses the key technologies about electric vehicle charging station.[4]

III. PROBLEM STATEMENT

If you're a car buyer in India chances are your confusion goes beyond just "What car to buy?" Given the current environment, there have been several rumours of diesel engines dying in 2020 and electric vehicles becoming the new mainstay. We don't blame you, especially when cars seem like the first target when any pollution related concerns are raised.

IV. SOLUTION

For this problem we can design a different technique that does not harm the environment and also user friendly charging methods.

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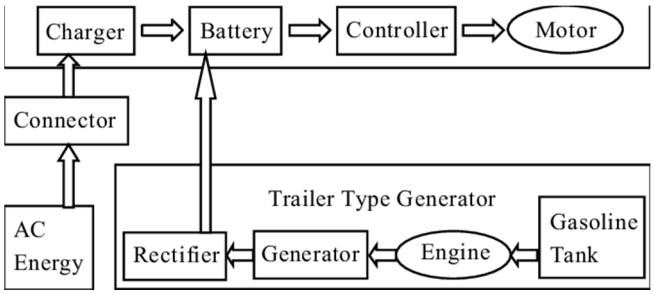
V. BLOCK DIAGRAM

An electric vehicle has many parts. But, an electric vehicle requires some basic parts which are shown in the blockdiagram.



1) *Charging Port:* The charging port connects the Vehicle to the external supply. To charge the battery.
2) *Battery:* Battery pack is a important parts in electric vechicle it is a set of many battery cells. The battery pack is the fuel source of the car, since there are hunderds of cells arranged to from a battery pack a special circuit is required to monitor these cells this circuit is called as the Battery Monitoring circuit. The voltage rating of the cells will be anywhere from 3.7V for a lithium batteries and a maximum of 12V for lead – Acid Batteries.
3) *Controller:* We known that battery is a D.C source andwe have motor which is 3-phase A.C controller is used to handle this situation. Each electric vechicle hasits own controller. It also controls the speed of the motor. The controller gets all the inputs form the user like the amount of throttle (accleration),breaks pressure,driving mode etc.(6).
4) *Motor:* The motor converts electric energy into mechanical energy. Using power from the traction battery pack, this motor drives the vechicle wheels. some vechicle use motor generators that perform both the drive and regenration functions.(7).
5) *Transmission Driveshaft:* The transmission transfers mechanical power from the electric traction motors to drive the wheels.

VI. CHARGING INFRASTRUCTURE

Charing infrastructure is installed for personal use vehicles. Customers charge their vehicles at home as well as charge the car at the park, shopping center, charging station, public parking. etc. Giving a major impetus to electric vechicle (EV) mobility the goverment has apporved installation of 2,600 EV charging stations in 62 cities under FAME ll. Tamil Nadu will get 256 such charging stations while the union territory of puducherry will get 10. Maharashtra tops the number of charging points with 317 followed by Andhra Pradesh with 266. Gujarat, Rajasthan, and Uttar Pradesh will get 228,205 and 207 EV charging statiions respectively. The union territories of Delhi and chandigarh are expected to get 72 and 70 charging stations while Uttarakhand and Himachal pradesh will get 10 each. The newlyminted union territory of Jammu and Kashmir will get25 charging points.

VII. CONCLUSION

This paper presents consideration of some case studies of electric vechicles. This project will lead to employment of many electric emgineers. The implementation of electricvehicle in india aims primarily to reduce greenhouse gas emissions and cut oil expenses. The vision 2030 put forth bythe indian Government is an ambitious and difficult task. Thegovernment should more oppotunites and final ways tomeet the challenges facing the implementation of EV.

VIII. ACKNOWLEDGEMENT

A part from the efforts of ours,the success of any project depends largely on the encouragement and guidelines ofmany others.We thank all those who helped us successfully complete this research paper.

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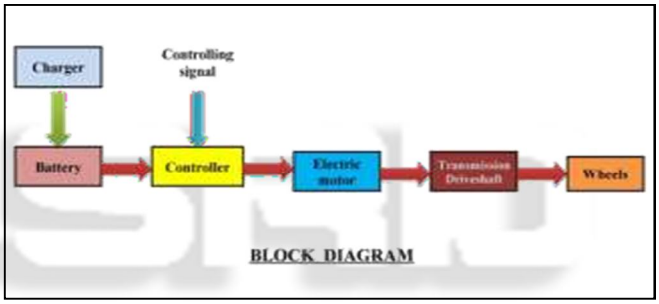

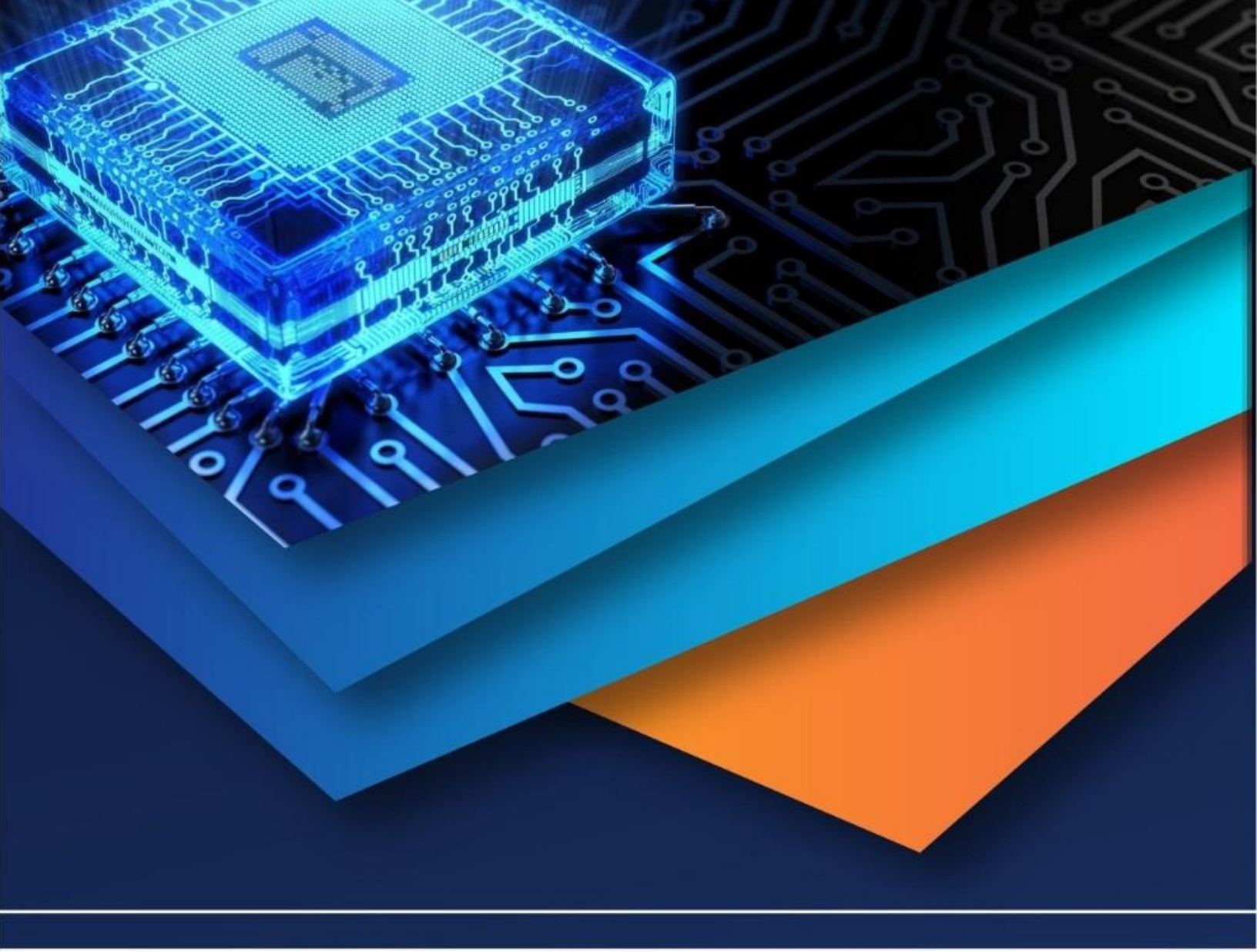

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