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ELECTRIC BICYCLE BY USING NON EXAUSTABLE FUEL RESOURCE

D.SANDHYA RANI[1], L.KALYAN[2], G.VANI[3], V.S.V.V.S.SAI KUMAR[4], K.MANIKANTA SATYANARAYANA [5],P.ESWAR VINAY VENKATESH[6]

[1]Assistant Professor, Dept of EEE, VSM COLLEGEOF ENGINEERING, Ramachandrapuram, A.P,India

[23456]B. Tech student, Dept of EEE, VSM COLLEGE OF ENGINEERING, Ramachandrapuram, A.P, India

ABSTRACT: There is growing demand for Electric- Bikes for last two decades in India as there will be less air Pollution, lower Preservation cost and reduced noise Effluence using Electric-Bikes. Bicycle Existence the greenest mode of transportation with a drawback that cannot be ignored in this fast Paced world .Transport is now greeted as time exchangeable process. So this is where electric bike mainly came into picture. Physical Analysis is carried out to Support the product development Team in validating the designs and improving the present Designs. There are many uses of an electric bicycle, like existence used in heart therapy Centres for patients having heart problems and Lung problems. Our aim is to fabricate an electric Bicycle which can be used for profitable and medical resolution also.

Keywords— Solar Sprayer, Non-conventional energy, Pesticides, Eco-friendly.

1. INTRODUCTION

The paper presents on Electric Bicycle .This was first developed in 1800's in US and those were documented within various US patent rights. On 31st Dec, 1895 Ogden Bolton designed a battery powered cycle. He integrated using 6 pole brush and commuter DC hub motor connected to the rear wheel. He was then issued a US patents. Couple of years later, Hosea W. Libbey invented electric bicycle which was proposed by double electric motor. This motor was so designed that it was attached with the crankset axle. Later in 1990's torque sensors and power controls were developed including some modified versions of bike with NiMH, NiCd and/or Li-ion batteries which offered lighter, density capacities batteries. But this bicycle faced decrease in production when petrol and diesel resources came in existence Taking considerations of recent events of major resources and facilities at their disposal, over increasing traffic, snags problem of parking and the need to make automobile a more environmental friendly, designers of vehicles are back with a view to hit upon a novel concept that completely alter the conventional design. Recent developments on Electric bike which are pedal operated are tremendously increasing all over the world market.
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2. MAIN COMPONENTS

A. E-Bike battery
B. Electric bike power meter
C. E-Bike motor and controller
D. Wheel sensor

3. BLOCK DIAGRAM

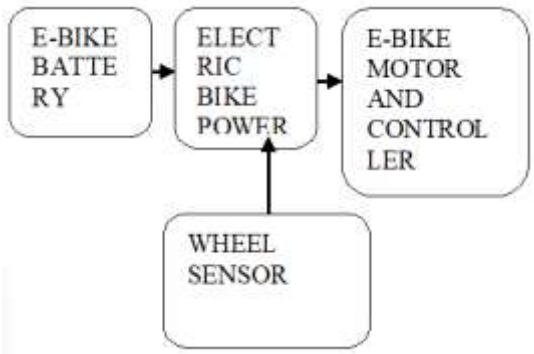

Fig. 1 Block diagram

4. WORKING

The first thing should know about E-BICYCLE is that they're here to stay. Electric bicycle sales jumped by an incredible 91 percent from 2016 to 2017 alone, according to the market research firm NPD Group. It's a $77.1 million industry, and there's no sign of a slowdown. Last year, electric-bike sales even surpassed traditional bicycle sales in the

Netherlands. Some view the rise of e-bicycles as a threat as though standard bicycles will go the way of the penny-farthing once everyone goes electric. But fear not: E-bicycles aren't here to rob us of our human-powered way of life. In fact, they may very well enhance it. So as we roll our way into peak riding season, here's everything you need to know about the electric revolution Simple convenient, cheap, and economical bicycles are one of the world's favorite forms of transportation. But they're not for everyone. They can be hard to pedal up and down hills or with heavy loads, and elderly or disabled people may find them impossible to manage. In the last few years, a new generation of electric bicycles has begun to revolutionize our idea of environmentally friendly transportation. These new cycles have all the convenience of cars with all the simple economy of ordinary cycles. Let's take a closer look at how they work the Motors are a device that converts electrical energy into mechanical energy. The principle of electric bikes motor is to generate the rotating magnetic field by using the electrified coil (that is, the stator winding) and act on the rotor squirrel-cage closed aluminium frame to form the magneto electric rotating torque. The motor is divided into DC motor and AC motor according to the power supply. Most of the motors in the power system are AC motors. Can be synchronous motor or asynchronous motor (motor stator magnetic speed and rotor rotation speed do not maintain synchronous speed).The motor is mainly composed of the stator and the rotor. The direction of the force motion of the electric wire in the magnetic field is related to the direction of the current and the direction of the magnetic sense (the direction of the magnetic field). The FIG1 show the block diagram of electric bikes so the working principle of the motor is the effect of magnetic field on the current force, which makes the motor rotate. Electric bicycles motor power is different, such as the general assembly of 12AH battery four blocks of motor power is 350 W, this refers to the internal gear of the high speed motor. In the case of a brushless toothless motor, the actual power is 2 cycling system (part of the traditional bicycle), battery, controller (sends power to the motor), electric motor and pedalling sensor. Fig1 motor is supplied with power from the battery, which is recharged in the electrical grid**,** although a solar panel can also be used. Certain modern motors can be charged while riding downhill. When the sensor detects pedalling, it starts the motor, which helps on steep hills and long distances. When the rider stops pedalling or brakes, the motor stops.

5. RESULT AND DISCUSSION

From1973 to 2017 the search yielded 896 who set temporal distribution .It must be noted that the search has no data prior to this date, for this reason 1973 is considered first year of this search. It is observed that the increase begins in 2003, and 2010 is the year when scientific production increases significant. These publications are written mostly in English in more than 90% of cases, although the Chinese language also appears strongly since 2001, with 7.5%, other languages are already anecdotal with less than 1% and included Japanese, Dutch, German, Polish, Russian, Spanish and French. By this project we can bring the pollution free environment and avoid the sound pollution.

Fig. 2 **Electric bike**

6. CONCLUSION

With the increasing ingesting of natural resources of petrol, diesel it is necessary to swing our way towards alternate resources like the FIG 2 Electric bike and others because it is necessary to identify new way of transport. Electric bike Fig 2 is a modification of the existing cycle by using electric energy and also solar . Since it is energy efficient, electric bike is cheaper and affordable to anyone. It can be used for shorter distances by people of any age. It can be contrived throughout the year. The most vital feature of the electric bike is that it does not consume fossil fuels thereby saving cores of foreign currencies. The second most important

feature is it is pollution free, eco – friendly and noiseless in operation

7. REFERENCES

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