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Approved by AICTE & Affiliated to Anna University
ISO 9001:2015 & ISO 14001:2015 Certified Institution
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RIDING BATTERY CYCLE WITHOUT CHARGING USING SOLAR POWER

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ABSTRACT

- There are so many vehicles that came to influence in the existing world. Their operating systems are based on usual fossil fuel system. At the present sense the fossil fuel can exceed only for a certain period after that we have to go for a change to other methods. Thus we have made an attempt to design and fabricate an ultimate system (Solar Cycle) which would produce cheaper & effective result than the existing system. This will be very useful to the future needs of the world.

- An attempt is made in the fabrication of a solar powered System for a two-wheeler (Cycle). This works on electric power distributed by the DC electric motor receiving the current from a battery. The motor and the various parts are such as sprocket, chain assembly, cycle and with easily available materials to serve and fulfill the purpose of the project. Battery is charged by using solar panel.

- The drive system of the normal Cycle is not altered. This system is two in one system. The cycle is operated ether by

- Pedaling manually
- Battery and motor driving mechanism.

INTRODUCTION

- All vehicles that are in the market cause pollution and the fuel cost is also increasing day by day. In order to compensate the fluctuating fuel cost and reducing the pollution a good remedy is needed i.e. our transporting system.
- Due to ignition of the hydrocarbon fuels, in the vehicle, some time difficulties such as wear and tear may be high and more attention is needed for proper maintenance. Our vehicle is easy to handle and no fuel cost to the other existing vehicles

- Hence a need for a change in the existing alternative system which can produce higher efficiency at minimum cost was though about an attempt has been made to design and fabricate such an alternative system.

- So this project "**SOLAR CYCLE"** is very much useful, since it is provided with good quality of power sources and simple operating mechanism. Hence "EACH AND EVERY DROP OF FUEL SAVES OUR ECONOMY AND MEET THE NEEDS" is the saturation point that is to be attained as soon as possible. In order to achieve this saturation point we have to save and seek for some other source of power

- This power, the alternate power must be much more convenient in availability and usage. The next important reason for the search of effective, unadulterated power are to save the surrounding environments including men, machine and material of both the existing and the next forth generation from pollution, the cause for many harmful happenings and to reach the saturation point.

- The most talented power against the natural resource is supposed to be the electric and solar energies that best suit the automobiles. The unadulterated zero emission electrical and solar power, is the only easily attainable alternate source

- The wire connections were made for the flow of electrons from one part to another part. When the motor energise through the current, the stator field coil gets magnetized and induces the rotor shaft to rotate in the counter clockwise direction. At the end of the motor shaft relevant conditions were made for the seating of sprocket assembly. Sprocket-chain arrangement is a power transmission device, which gives drive to the rear wheel.

- Hence we decided to incorporate the electric power in the field of automobile, the concept of many Multi National Companies (MNC) and to get relieved from the incorrigible air pollution.

- This implementation concept is tried to the best two wheeler Cycle. The various simple arrangements done for the good driving conditions of the battery powered Cycle with its most needed specifications was summarized in this report.

WORKING PRINCIPLE

- This solar cycle is a two in one system. It is operating both the condition. They are,
- By using Normal pedaling
- By using Battery-motor drive Arrangement.
- The working of battery-motor drive mechanism is explained below. The working principle of the system starts with the battery connections. In battery there are two terminals. The battery is charged by using solar panel. One is the positive terminal and another one is the negative terminal

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PARTS

1. FRAME
2. SHAFT
3. BEARING
4. CYCLE
5. PEDAL
6. D C MOTOR
7. BATTERY
8. CHAIN DRIVE
9. SOLAR PANNEL

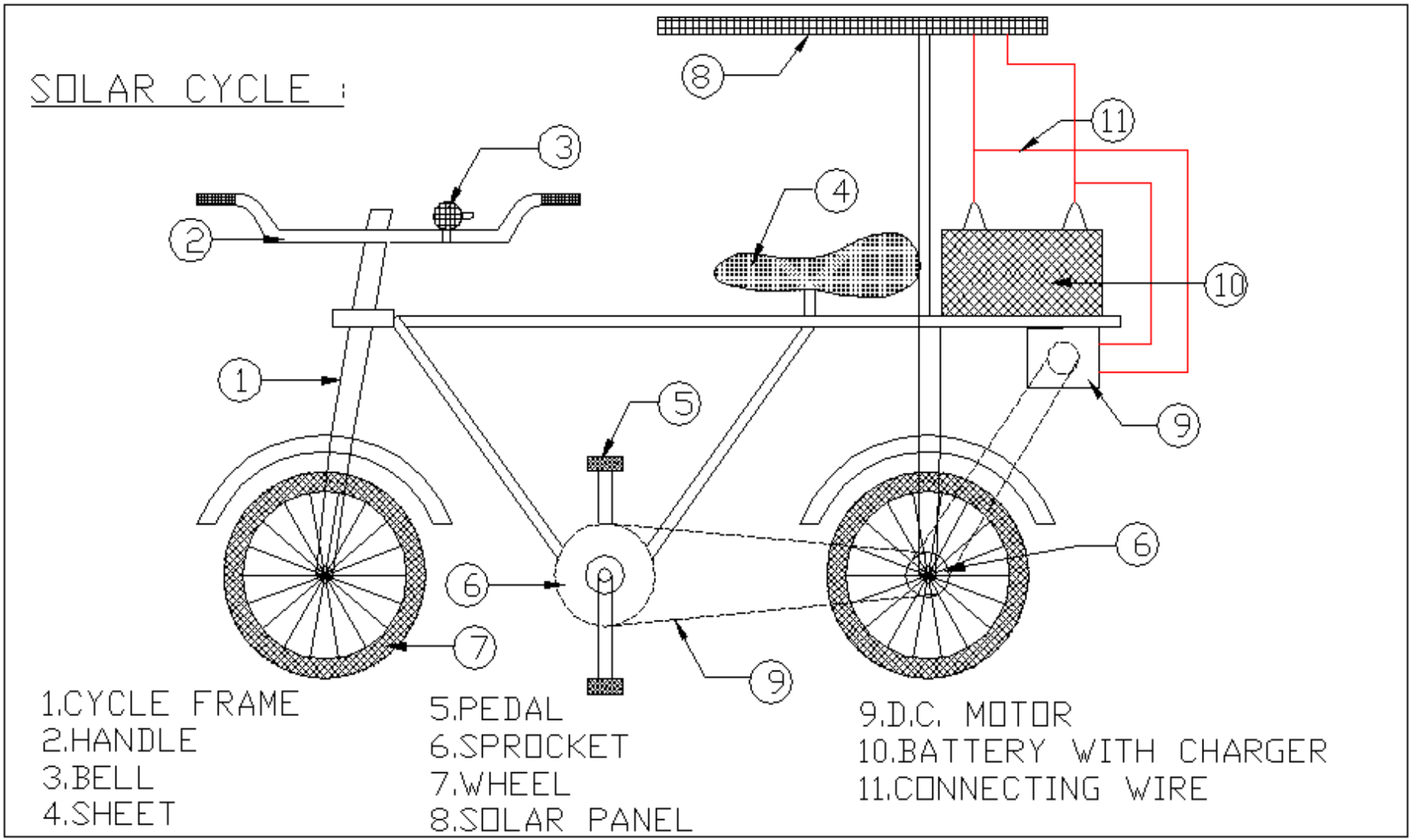
ADVANTAGES

- Fuel cost.
- No pollution & No fuel residue
- Easy starting
- Less wear & tear because no reciprocating parts
- Lubrication is not necessary
- It will run both the condition (Manual pedaling, battery running).

LIMITATIONS

- Battery should be charged periodically
- Not fit for long travel
- Not applicable for heavy loads until suitable power supply & driving unit

BLOCK DIAGRAM



COST ESTIMATION

S.NO	DESCRIPTION	COST
1)	CYCLE	2000
2)	DC MOTOR	2000
3)	SOLAR PANEL	1000
4)	BATTERY	1000
5)	CHAIN DRIVE	500
6)	SPROCKET	500
7)	TOTAL	7000

CONCLUSION

- The life cycle of a solar battery refers to the length of time it can maintain optimal performance throughout its charge and discharge cycles. It is essential to consider several factors, including life expectancy expressed in the number of charge/discharge cycles it can withstand.
- When selecting a battery for a solar system, it is imperative to weigh the initial costs against the long-term benefits, in terms of lifespan, storage capacity, and environmental performance. Finally, adopting good maintenance and recycling practices is not only about extending lifespan, but also a commitment to environmental sustainability.


Thank
YOU