ABSTRACT

Electric car with a recovery system is a concept to build a vehicle capable of performing electrical energy recovery on the power supply either directly or through an emergency power supply source automatically, by utilizing the process of recurrence of energy obtained by utilizing the empty function on the main mover that is connected to the generator will can produce an electric current that can be used on the power supply.

The loop energy design has a concept that takes from the kinetic energy of the motion force of the car as it travels and the rotation of the brush motor shaft connected to the generator. In this loop energy rotor has several combinations with existing concepts, such as the Step up Converter which is one type of DC DC to meet the minimum and maximum limits entered on the battery, the use of gear placed on the brushless motor DC main propulsion of the generator by utilizing the vacant part of the design of the brushless DC motor has a loop energy model connected to the emergency power supply via each rotation of the motor brushless DC.

The use of Energy Loop on emergency batteries in this prototype is capable of generating electric current in the same position with the specified value 90-93 with an average of 0.33067 A - 0.362308 A which in the size of an electric car the actual size has different charger specifications such as Lv1 (12 A) and Lv2 (up to 80A) which if scaled 1:10 to 3.3067 - 3.362308 A per Generation rotation.

Keyword: Loop Energy, Brushless Motor, kinetic energy, Emergency Battery