

1.15 ABSTRACT

Shock absorbers are an important part of automobile and motorcycle suspensions, aircraft landing gear, and the supports for many industrial machines. The power generating using electromagnetic suspension is a system that converts vehicle bump generated linear motion & vibration, into electricity to be used in battery charging

In this project, use this free energy and store it for further needs such as vehicle lights, cooling, Indicator lights. To achieve this to use the principles of electromagnetism in order to generate electricity from this motion.

Hereto design of spring shear stress = 595 N/mm^2 , energy calculation for 1 stroke current = 24 m A , voltage required = 2.1 V and LED current required = 20 m A , $V = 1.8 \text{ V}$, Magnet diameter = 35 mm , shaft diameter = 18 mm .

This project has the ability to continuously recover a vehicle's vibration energy dissipation that occurs due to road irregularities, vehicle acceleration, and braking, and use the energy to reduce fuel consumption. A regenerative shock absorber is a type of shock absorber that converts intermittent linear motion and vibration into useful energy, such as electricity