## **IJARSCT**



International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)

International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal

Volume 4, Issue 2, June 2024

## **Energy Generation by Using Speed Breaker**

Mr. Jadhav Rajendra B.

Lecturer, Department of Mechatronics Engineering Amrutvahini Polytechnic, Sangamner, India

Abstract: Today we see many vehicles on road creating pollution and using its mechanical energy only for transportation purpose, but if we use that kinetic energy of vehicles to convert into some useful electrical energy then we can use that energy for street lights and can save at least some amount of electrical energy. In this article various methods of generating power using the speed breaker are listed and studied carefully. Many authors conducted many experiments on each type of power generation method, and the results are noted down here. The methods listed here are rack and pinion method, roller speed breaker, crankshaft and piston mechanism, hydraulic speed breaker. Our project is to enlighten the streets utilizing the jerking pressure which is wasted during the vehicles passes over speed breaker in roadside. We can tap the energy generated by moving vehicles and produce power by using the speed breaker as power generating unit. The kinetic energy of the moving vehicles can be converted into mechanical energy through rack and pinion mechanism and this mechanical energy will be converted to electrical energy using generator which will be used for lighting the street lights. Therefore, by using this mechanism we can save lot of energy which can fulfill our future demands.

Keywords: Power Generation, Renewable Energy, Speed Breakers, Infrastructure, Rack & Pinion

DOI: 10.48175/568

