

## **ELECTRIC POWER GENERATION SYSTEM**

### **ABSTRACT**

Energy is the prime necessity of survival of each and every organism in the universe. Everything happening in the environment is a result of the flow of energy in one or other forms. Energy can be converted into a number of forms that can be measured in various ways.

The substantial usage of energy has led to an energy crisis over a few years. To counter with this, techniques encouraging optimum use of conventional sources should be incorporated. One such technique is explained here. The count of vehicles passing on roads has increased these days. The kinetic energy of the moving vehicles can be captured at speed breakers and can be converted into mechanical energy of the shaft. This is done by using the reciprocating to rotational motion conversion principle of the rack and pinion mechanism. Then, this mechanical energy produced can be transformed to electrical energy by using a generator or dynamo. And this energy generated, can either be used directly on field or can be stored in a battery as well. All these conversions take place in an electro-mechanical unit which is explained in this article.

This energy saved during the daytime can be used for a plethora of purposes in order to suffice our future demands. In the upcoming days, considering the steep increase in the demand of electricity, these kind of techniques would prove a great boon to all of us and hence to the world, since it could save a lot of excess electricity production in powerplants.

Some, out of the many applications of these technique may include electricity production for streetlights, check-post lamps, parking of malls and many more. Generating electricity by speed breakers is an ingenious and useful concept as it has more advantages as compared to its faults and it is best suited for the current situations.