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Power Generating by using a Speed Breaker

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Abstract: *As our world continues to grapple with the challenges posed by climate change, the need for sustainable and renewable sources of energy has become increasingly urgent. Fossil fuels, which have long been the backbone of our energy system, are fast depleting, and their combustion by-products are causing serious environmental problems. Therefore, it is essential that we shift towards the use of renewable energy resources, which can help reduce pollution and save fossil fuels. One area where we can explore the potential of renewable energy is in capturing the kinetic energy from moving vehicles. While this concept is not new, it has not been widely implemented due to the need for specialized mechanisms to effectively capture and convert the kinetic energy into electrical power. However, by using an innovative arrangement of Rack and Pinion with Ratchet Mechanism, it is possible to efficiently harness the kinetic energy from moving vehicles and convert it into usable electrical power. This generated power can be used for various low-power applications such as streetlights and traffic signals. Implementing such a system in urban areas has the potential to utilize the energy from millions of passing vehicles to generate power for public use. This can significantly reduce the dependence on fossil fuels and promote the use of renewable energy sources. Moreover, it can also help reduce the overall carbon footprint of the transportation sector and mitigate the effects of climate change. However, the implementation of such a system requires careful planning, significant investment, and proper infrastructure. It is also important to ensure that the installation of these systems does not obstruct traffic or pose any safety hazards to motorists or pedestrians. Therefore, proper coordination with local authorities and stakeholders is essential for the successful implementation of such projects..*

Keywords: Rachet Mechanism, Kinetic Energy, renewable energy resources

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