Expert Opin Environ Biol 2018, Volume 7
DOI: 10.4172/2325-9655-C4-030

6th International Conference on
GREEN ENERGY AND EXPO
August 29-31, 2018 | Toronto, Canada

Performance analysis and fabrication of power generating shock absorber

J Taweekun[1], **S Arif** [1,4], **A Nadeem**[2] and **R Kalvin**[3]
[1]Prince of Songkla University, Thailand
[2]Inha University, Korea
[3]Wah Engineering College, Pakistan
[4]Air university, Pakistan

The source of energy of vehicles is varying day by day, especially in case of electric vehicles (EVs) with the rise in technologies of renewable energy. Therefore, a good solution is proposed which transforms the wasted kinetic energy into a substituent useful energy for the vehicle itself and this is called a power generating shock absorber (PGSA). However, present power generating shock absorbers focus predominantly on the methods of energy harvesting, and there is no such power generating shock absorber for use in range-extended EVs. In this research, the main focus is to check that either such shock absorber can be beneficial or not. Therefore, power generating shock absorber using a rack-pinion mechanism is established which uses the intermittent linear movement of the suspension system. This mechanism accumulates the power of suspension, which is otherwise wasted by the traditional shock absorber. The experiments performed on apparatus proved that the power generating shock absorber is beneficial in the generation of energy and can be utilized for energy applications in range-extended EVs.

juntakan2016@gmail.com