Abstract

The three-wheeled motor taxi, often termed as "auto rickshaw" is very popular in India and serves as the most affordable means of transportation to the local people. Due to its small size, it is well suited for the narrow crowded streets in Indian cities. One of the main concerns of this vehicle has been its large emissions of greenhouse gases and other toxic particulates, thereby causing severe air pollution. This paper presents a survey of relevant literature on the need for a low-cost Parallel Electric Hybrid Three-Wheeled Motor Taxi or Parallel Electric Hybrid Rickshaw (PEHR). Extensive simulation studies are carried out on a Bajaj RE auto rickshaw equipped with a two stroke engine on the modified Indian Driving Cycle by making it electric hybrid capable of managing its regenerative braking energy. The main focus has been the study of brake recovery energy and its management to increase the fuel economy delivered by the PEHR.
Refer

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Index Terms

Computer Science
Green Technology
Keywords
Parallel Electric Hybrid Rickshaw (pehr)  Indian Driving Cycle  Drive Power Demand
Fuel Economy
Regenerative Braking Energy