

Providing Energy Management of a Fuel Cell-Battery Hybrid Electric Vehicle

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Abstract : On account of the concern of the fossil fuel is depleting and its negative effects on the environment, interest in alternative energy sources is increasing day by day. However, considering the importance of transportation in human life, instead of oil and its derivatives fueled vehicles with internal combustion engines, electric vehicles which are sensitive to the environment and working with electrical energy has begun to develop. In this study, simulation was carried out for providing energy management and recovering regenerative braking in fuel cell-battery hybrid electric vehicle. The main power supply of the vehicle is fuel cell on the other hand not only instantaneous power is supplied by the battery but also the energy generated due to regenerative braking is stored in the battery. Obtained results of the simulation is analyzed and discussed.

Keywords : electric vehicles, fuel cell, battery, regenerative braking, energy management

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