

REGENERATIVE BRAKING FOR AN ELECTRIC VEHICLE USING HYBRID ENERGY STORAGE SYSTEM

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ABSTRACT

This paper presents study and implementation strategy for deploying regenerative braking system in vehicles with hybrid energy source. Intelligent electronic control strategy for the whole process using Buck-Boost Converter is given, further it encapsulates elements of structure of regenerative braking system. Application of super capacitors as power buffer to minimize rapid power fluctuation under acceleration/deceleration and properties of super capacitors which makes it suitable for regenerative energy recapture are also stated.

KEYWORDS: Super Capacitors, Bust-Boost, Regenerative Braking, Control Strategy, Electric Vehicle, Battery