

## **Sizing of Hybrid Source Battery/Supercapacitor for Automotive Applications**

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**Abstract :** Energy storage system is a key aspect for the development of clean cars. The work proposed here deals with the modeling of hybrid storage sources composed of a combination of lithium-ion battery and supercapacitors. Simulation results show the performance of the active model for a hybrid source and confirm the feasibility of our approach. In this context, sizing of the electrical energy supply is carried out. The aim of this sizing is to propose an 'optimal' solution that improves the performance of electric vehicles in term of weight, cost and aging.

**Keywords :** battery, electric vehicles, energy, hybrid storage, supercapacitor

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