

Ultracapacitor State-of-Energy Monitoring System with On-Line Parameter Identification

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Abstract : The paper describes a design of a monitoring system for super capacitor packs in propulsion systems, allowing determining the instantaneous energy capacity under power loading. The system contains real-time recursive-least-squares identification mechanism, estimating the values of pack capacitance and equivalent series resistance. These values are required for accurate calculation of the state-of-energy.

Keywords : real-time monitoring, RLS identification algorithm, state-of-energy, super capacitor

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