

Title: Speed control of flywheel energy storage

Generated on: 2026-04-14 12:52:09

Copyright (C) 2026 ALEXANDRA BESS. All rights reserved.

---

This paper examines the modeling and speed-based control of an IM-based flywheel energy storage system (FESS) for integration with a variable wind generation system (VSWG) feeding an online ...

He, Y.; Wang, F.; Lin, G.; Rodriguez, J.R.; Kennel, R.M. 2021: A centralized control strategy for grid-connected high-speed switched reluctance motor drive system with power factor correctionIEEE ...

Abstract- A novel control algorithm for the charge and discharge modes of operation of a flywheel energy storage system for space applications is presented.

When energy is extracted from the system, the flywheel's rotational speed is reduced as a consequence of the principle of conservation of energy; adding energy to the system correspondingly results in an ...

In this paper, an extended state observer (ESO) based speed regulation strategy is proposed for flywheel energy storage systems (FESS) under current-side and rotor-side disturbances. Lumped ...

Flywheel energy storage technology has attracted more and more attention in the energy storage industry due to its high energy density, fast charge and discharge speed, long service...

Flywheel energy storage stores electrical energy in the form of mechanical energy in a high-speed rotating rotor. The core technology is the rotor material, support bearing, and ...

Accordingly, the invention provides a speed control for a flywheel energy storage system that provides accurate and reliable speed control for long-term operation.

Website: <https://lesfablesdalexandra.fr>

