

Hydraulic solar container hybrid electric vehicle

This Review discusses the integration of solar electric vehicles into energy systems, highlighting their potential to enhance energy efficiency, reduce emissions and support transport ...

This paper presents a soft actor-critic (SAC) approach trained on a multi-modal driving cycle (MDC) for selecting operational modes of electro-hydraulic hybrid electric vehicle (EHHEV).

While hybrid electric vehicles have captured a lot of attention in the passenger car market, hydraulic hybrid vehicles (HHV) provide a compelling alternative in applications that require ...

A novel electric-hydraulic hybrid drivetrain incorporating a set of hydraulic systems is proposed for application in a pure electric vehicle. Models of the electric and hydraulic components are ...

The innovation and development of energy management strategies attract more and more attention as a key technology in hybrid electric vehicles. This paper focuses on a novel type of ...

In addition, the electro-hydraulic power ratio under the power switching mode is another essential technology of hybrid electric vehicles for the mechanical-electro-hydraulic power coupling ...

In pure electric vehicles, frequent starting and braking conditions lead to a reduction in battery lifespan. The adoption of an "electric-hydraulic" hybrid power system can effectively mitigate ...

Comprehensive models of the main components in the hydraulic drive subsystem, including the hydraulic accumulator, hydraulic pump motor, hydraulic valves, and pipelines, were ...

An excellent energy management strategy is paramount to the new energy vehicle safety, durability, and reliability, which invariably affects the driving experience. This paper proposes a novel parallel electric ...

This paper presents a novel automotive propulsion system that integrates solar photovoltaic energy collection, hydraulic energy storage, and conventional internal combustion engines to create a high- ...

An electric hydraulic hybrid (EH2) powertrain for urban vehicles has been introduced and evaluated in this paper. The high power density hydraulic system in parallel configuration ...

Overview Principle of operation Efficiency gains Types of hydraulic hybrid vehicles Advantages and disadvantages External links Hydraulic hybrid vehicles (HHVs) use a pressurized fluid power source, along with a conventional internal combustion engine (ICE), to achieve better fuel economy and reductions in

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harmful emissions. They capture and reuse 70-80% of the vehicle's kinetic braking/decelerating energy and potential descending energy compared to 55% for electric hybrids. For trucks and buses, this can also be less expensive than electric systems, due to the price of batteries required for the latter. Hydraulic hybrid vehicle systems ca...

The challenge in developing an energy management strategy for electro-hydraulic hybrid vehicles (EHHV) is how to satisfy conflicting control constraints on energy conversion, ...

Hydraulic hybrids use many of the same principles as electric hybrid vehicles, but instead of batteries, they use a lightweight hydraulic system to capture and reuse braking energy for ...

This paper presents an optimal control co-design framework of a parallel electric-hydraulic hybrid powertrain specifically tailored for heavy-duty vehicles. A pure electric powertrain, ...

Abstract An excellent energy management strategy is paramount to the new energy vehicle safety, durability, and reliability, which invariably affects the driving experience. This paper ...

With strong demands of energy-saving and environment-friendly vehicles, hydraulic hybrid powertrain is a suitable solution for urban transportation. This article proposes a novel hydraulic hybrid vehicle with ...

Hydraulic hybrid technology can further improve the economy of electric vehicles (EV). This paper investigates a novel electro-hydraulic power coupling vehicle (EHPCV), which is endowed with ...

This study proposed the association of the hydraulic drivetrain architecture and the electric powertrain system, generating the electric hydraulic hybrid vehicle controlled by fuzzy logic.

This study investigates the impact of greenhouse gas and C O 2 emissions from conventional vehicles (CVS) in Bangladesh and proposes a renewable energy and battery storage-based hybrid electric ...

Abstract. In this paper three basic configurations of hydraulic hybrid vehicle are explained. An overview of literature for parallel, series and power-split hydraulic hybrid vehicle is presented.

This paper presents a comprehensive optimization procedure of a series electric hydraulic hybrid vehicle powertrain and control through the interactive adaptive-weight genetic ...



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