

Review of: "Optimizing Energy Efficiency for Connected and Autonomous Electric Vehicles in the Context of Vehicle-Traffic Interaction"

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Potential competing interests: No potential competing interests to declare.

The author has delved into the intricate relationship between vehicle dynamics and traffic conditions, elucidating their substantial impact on the operational efficiency of connected and automated electric vehicles (CAEVs). This study introduces an energy-conscious optimization (ECO) approach tailored to enhance the energy efficiency of CAEVs. This is achieved by systematically addressing the dynamic constraints posed by the traffic environment and the inherent limitations of the vehicle's powertrain, all within a unified framework.

In order to construct the ECO approach, a pioneering bias deep compensative estimator is introduced. This estimator serves the purpose of identifying key parameters within the vehicle dynamics model. These parameters, once identified, play a pivotal role in translating the constraints inherent to the traffic environment into corresponding powertrain constraints specifically designed for CAEVs.

However, the author is tasked with providing a comprehensive explanation of the insights garnered from each equation presented in the study. Furthermore, it is imperative for the author to elucidate the unique contributions that each equation makes towards modeling the intricate dynamics of CAEVs.