

# Review of: "Simulation of Control System for a Half-Car Suspension System for Passenger Vehicle Application by Designing an LQR Controller"

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Potential competing interests: No potential competing interests to declare.

With all due respect to the authors, I would like to express the following:

The presented article is valuable in terms of content; however, unfortunately, its writing is weak, and it lacks proper formatting. It seems that the authors did not pay sufficient attention to precision in the conclusion and the overall composition of the content.

1. The title of the manuscript is not suitable. Authors can modify the title for example: "Optimizing Passenger Comfort: LQR Control System Simulation for Half-Car Suspension Design in Vehicles".
2. The article is not well-written. The authors lack a strong start in both the abstract and introduction, as well as in other sections. They have started from the middle without a proper introduction. It is necessary to rewrite the presentation of the article to make it more readable and adhere to standard conventions.
3. The introduction is too much poor!!
4. It is unclear whether the formulas have been derived or if they have been borrowed from other articles.
5. The authors have not provided any explanation regarding the methodology for obtaining such block diagrams and state-space equations. They have merely presented and solved them without offering insights into their derivation.
6. The authors must thoroughly explain the rationale for using and the nature of Relationship 12.
7. Figure 5 is not clear.
8. For enhanced clarity, it is advisable to zoom in on specific sections in figures 10,11,12,13.