

Review Form 3

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| Journal Name: | Journal of Engineering Research and Reports |
| Manuscript Number: | Ms_JERR_130184 |
| Title of the Manuscript: | Aircraft Pitch Control using Transformation Matrix T |
| Type of the Article | Original Research Article |

PART 1: Comments

| | Reviewer's comment | Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i> |
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| Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part. | The manuscript presents significant contributions to the scientific community by advancing aircraft pitch control methods through the innovative use of the Ackerman formula and transformation matrix T . This research provides a robust mathematical framework and simulation-based validation using MATLAB, offering improved precision and response in pitch control for modern aircraft. The study addresses critical challenges like overshooting, ensuring high accuracy and stability, which are crucial for aviation safety. The findings have the potential to influence further developments in control systems, extending beyond aviation to other fields requiring precise state feedback control. | |
| Is the title of the article suitable? (If not please suggest an alternative title) | The title of the article, "Aircraft Pitch Control using Transformation Matrix T," is generally appropriate given the content, as it directly highlights the focus of the research: using the transformation matrix T for aircraft pitch control. However, if you aim to make the title more precise or engaging for a technical audience, I suggest the following title: "Design and Simulation of Aircraft Pitch Control Using Matrix Transformation Techniques" | |
| Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here. | The abstract of the article primarily discusses solar radiation prediction and its effects on solar panels, despite the document being focused on aircraft pitch control using the Ackerman formula and transformation matrix T. This discrepancy suggests the abstract is unrelated to the main content of the paper. | |
| Is the manuscript scientifically, correct? Please write here. | Based on the provided content, the manuscript is scientifically correct but could benefit from addressing the following: 1- Validation against real-world scenarios: Mention whether experimental validation or hardware implementation was considered. 2- Comparison with other methods: Add a discussion on how the transformation matrix T compares to other controllers (e.g., PID, LQR). 3- Documentation of parameters: Ensure that all simulation parameters are explicitly detailed for reproducibility. | |
| Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form. | The references are sufficient for academic purposes but may require updates for recency. Most of the citations appear to be older, with key references dating back to 1998, 2001, 2003, and similar periods. To ensure the document reflects current research trends and advancements, it is recommended to include more citations from the past five years. This will improve the work's relevance and align it with the latest developments in aircraft pitch control methodologies. | |

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| Is the language/English quality of the article suitable for scholarly communications? | The document is generally clear and coherent, but there are occasional grammatical errors, awkward phrasing, and non-standard expressions that could be improved for scholarly communication. | |
| <u>Optional/General</u> comments | | |

PART 2:

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| | Reviewer's comment | Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here) |
| Are there ethical issues in this manuscript? | <i>(If yes, Kindly please write down the ethical issues here in details)</i> | |

Reviewer Details:

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|----------------------------------|-----------------------------|
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