|  |  |
| --- | --- |
| Journal Name: | [**Journal of Engineering Research and Reports**](https://journaljerr.com/index.php/JERR) |
| Manuscript Number: | **Ms\_JERR\_139314** |
| Title of the Manuscript: | **Research Status and Trend of Decoupling Algorithms for Multi-dimensional Force Sensors** |
| Type of the Article | **Original Research Article** |

|  |  |  |
| --- | --- | --- |
| **PART 1: Comments** | | |
|  | **Reviewer’s comment**  **Artificial Intelligence (AI) generated or assisted review comments are strictly prohibited during peer review.** | **Author’s Feedback** (It is mandatory that authors should write his/her feedback here) |
| **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.** | This paper provides a valuable review of advancements in decoupling algorithms for multi-dimensional force sensors, focusing on their critical role in high-end equipment systems. It highlights the challenges and limitations of traditional methods and explores emerging technologies like deep learning, piezoelectric materials, and digital twinning to improve decoupling accuracy and real-time performance. The integration of these innovations holds great promise for enhancing sensor reliability, adaptability, and cost-efficiency, especially in extreme environments. By addressing key issues such as computational complexity and model robustness, the paper offers a forward-thinking perspective on overcoming current obstacles. Overall, it makes a significant contribution to  the field, with implications for high-precision applications in robotics, aerospace, and medical technology. | Thank you for your professional integration and precise refinement. The content is concise and highlights the key points! |
| **Is the title of the article suitable?**  **(If not please suggest an alternative title)** | **Yes** | Thank you to the reviewers for your valuable comments！ |
| **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.** | **Yes** | Thank you to the reviewers for your valuable comments！ |
| **Is the manuscript scientifically, correct? Please write here.** | Yes | Thank you to the reviewers for your valuable comments！ |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.** | **Yes** | Thank you to the reviewers for your valuable comments！ |
| **Is the language/English quality of the article suitable for scholarly communications?** | Yes | Thank you to the reviewers for your valuable comments！ |
| **Optional/General** comments |  |  |

|  |  |  |
| --- | --- | --- |
| **PART 2:** | | |
|  | **Reviewer’s comment** | **Author’s Feedback** (It is mandatory that authors should write his/her feedback here) |
| **Are there ethical issues in this manuscript?** | There is no ethical issue |  |