

Review Form 3

| | |
|--------------------------|--|
| Journal Name: | Advances in Research |
| Manuscript Number: | Ms_AIR_130027 |
| Title of the Manuscript: | An overview study of multi-sensor fusion for map building and localization |
| Type of the 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> |
|--|--|---|
| 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 thesis provides a timely and comprehensive review of multi-sensor fusion SLAM technology, a key area in autonomous systems and robotics. This work is valuable because it synthesises recent developments in vision, inertial and LiDAR-based approaches, providing researchers and practitioners with a unified view of current capabilities and limitations. The systematic analysis of integration challenges and future directions provides valuable insights into the development of the field. In addition, the study of various fusion methods in this paper contributes to the understanding of the trade-offs of different sensor fusion methods, which is crucial for both academic research and industrial applications. | |
| Is the title of the article suitable? (If not please suggest an alternative title) | It's ok. trying to choose a specific place that you want to research in. | |
| 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. | What needs to be added: Clear statement of research objectives Literature review methodology Quantitative findings or key comparative insights Specific conclusions and recommendations Suggested deletion: Excessive technical details about sensor types Redundant information on SLAM basics Overly detailed description of methodology | Okay, I'll fix it. |
| Is the manuscript scientifically, correct? Please write here. | Advantages: Comprehensive coverage of current SLAM technologies Logical organisation of sensor fusion methods Well-structured analysis of technical challenges Areas for improvement: Enhanced critical analysis of existing solutions | Okay, I'll fix it. |
| Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form. | yes | |

Review Form 3

| | | |
|---|--|--------------------|
| Is the language/English quality of the article suitable for scholarly communications? | Current Issue: Inconsistent technical terminology There are grammatical errors Inconsistent use of acronyms | Okay, I'll fix it. |
| Optional/General comments | Please note the uniformity of terminology in the text, and add more keywords in the text, | |

PART 2:

| | | |
|--|---|---|
| | 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? | (If yes, Kindly please write down the ethical issues here in details) | |