
[JADS] #1096 - Round 1 Review Decision

JADS Editor <editor@bright-journal.org>

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To: pratya.nu@up.ac.th, Parin.Kh@up.ac.th, Patdanai.Ja@up.ac.th, Kuljira.Nu@up.ac.th, Kaewpanya.Nu@up.ac.th, Wongpanya.nu@up.ac.th



Dear Dr. Pratya NUANKAEW,

We are writing to inform you that your paper, entitled "**Multimodal AI Framework for Sign Language Recognition and Medical Informatics in Hearing-Impaired Patients**" submitted with the identification number **#1096**, has successfully completed a rigorous double-blind review process by the esteemed Journal of Applied Data Sciences (JADS) Peer Review. Please accept our sincere appreciation for your contribution to the field of data sciences through your submission. We are pleased to inform you that your manuscript is **Revision Required**. To facilitate this process, we kindly request that you carefully review the comments and suggestions provided by the reviewers. You are given a period of **7 days to finalize the revisions (otherwise your submission process will be postponed)** and ensure that the concerns raised are adequately addressed. The successful completion of these revisions will greatly contribute to the editorial decision-making process.

Upon receipt of your revised paper, our team will require approximately 2-7 days to thoroughly assess the modifications made. Subsequently, you will be promptly notified of the next decision regarding your manuscript. We advise you to focus on verifying the accuracy of metadata and ensuring the completeness of the revisions in order to minimize the likelihood of re-entering the review stage. We would like to extend our gratitude once again for choosing the Journal of Applied Data Sciences (JADS) as the venue for your scholarly work. Should you require any assistance or guidance during the revision or resubmission process, please do not hesitate to reach out to us. Our team is dedicated to providing the necessary support to facilitate a smooth and successful publication experience for you.

Thank you for your cooperation, and we look forward to the potential publication of your paper in the Journal of Applied Data Sciences (JADS).

Sincerely,

Ibrahiem M. M. El Emary
Editor-in-Chief
Journal of Applied Data Sciences (JADS)
Email: editor@bright-journal.org

----- - IMPORTANT - -----

----- - Content Writing - -----

Abstract: Please craft a concise abstract within a 250 to 300 word limit. Summarize the contributions, ideas, findings, or results of your paper and discuss their implications. Do not include abbreviations, footnotes, references, mathematical equations, diagrams, or tables. We suggest structuring your abstract as follows:

1. Clearly state the primary objective of your paper.
2. Highlight the virtues or contributions of your research.
3. Provide a conceptual description of your methodology.
4. Describe the research figure, tables and procedures employed, such as simulation, experimentation, or survey methods.
5. If the figure or table is in a non-English language, please provide a translated version of the table or a detailed explanation.
6. Present the main outcomes or results of your study, along with any relevant conclusions.
7. If applicable, discuss the implications of your findings for future research or practical applications.

Please note that this journal exclusively publishes high-quality papers. A high-quality paper should include the following elements:

1. A well-defined statement of the problem being addressed.
2. Proposed solution(s) to the problem.
3. Obtained results, accompanied by a clear description of any previous work on the topic and the novelty of your research.

Ensure that your discussion section is appropriate. In the "Results and Discussion" section, emphasize the most significant findings and provide a thorough analysis of the results.

The title of your paper should succinctly summarize the main ideas of your study. It should serve as a comprehensive and descriptive representation of your research. Use abbreviations and acronyms sparingly unless they are widely recognized.

SUBMISSION: #1096

TITLE: **Multimodal AI Framework for Sign Language Recognition and Medical Informatics in Hearing-Impaired Patients**

----- REVIEW 1 -----

----- Overall evaluation -----

Decision: Revision Required

----- Comment:

The abstract lacks clarity on dataset size and diversity, which is crucial in evaluating the generalizability of the model across different signer profiles and medical contexts.

The claim in the abstract that "YOLOv11 has been excluded due to abnormal loss behavior" is not sufficiently explained. No technical reason or insight is provided regarding what constitutes "abnormal" or why it occurred.

The phrase "image-based detector as the central perception component" in the abstract is vague and needs clarification on how it integrates with other modalities and its specific limitations.

In the introduction, the reference to "98.2% mAP for ASL alphabet letters" lacks context regarding dataset size, real-world applicability, or whether it was tested in similar clinical environments.

The statement "vision-based methods often enhanced with key point tracking can achieve nearly perfect accuracy" is overgeneralized and lacks reference to real-world deployment challenges like signer variability or motion blur.

The literature review does not sufficiently differentiate between isolated gesture recognition and continuous sign language recognition, which have fundamentally different technical challenges.

----- REVIEW 2 -----

----- Overall evaluation -----

Decision: Revision Required

----- Comment:

The discussion of the HAIM framework (in the literature review) is superficially linked to this work. It remains unclear how the principles of HAIM are directly adapted or implemented in the current study.

The literature review underrepresents existing efforts in sequence modeling for sign language, especially Transformer-based continuous sign recognition, which is only briefly mentioned.

The description of the dataset taxonomy (60 symptoms and 35 questions) lacks explanation on how the categories were selected or validated for clinical relevance.

The distribution of training data is highly imbalanced, yet no mitigation strategy (e.g., class reweighting or data oversampling) is discussed to handle potential bias during model training.

The paper claims YOLOv11 was used for feature extraction, but YOLOv11 is excluded from final evaluation. This contradiction weakens the methodology section and creates confusion about the model version used for inference.

The annotation process lacks detail on inter-annotator agreement, labeling protocols, or quality control, which are critical to ensure the reliability of gesture labels and bounding boxes.

----- REVIEW 3 -----

----- Overall evaluation -----

Decision: Revision Required

----- Comment:

Data augmentation strategies are listed generically without reporting how they improved model robustness in specific metrics or test cases (e.g., under different lighting conditions).

The explanation of mAP@50:95 in the Evaluation Metrics section omits any mention of class-wise results or standard deviation, despite acknowledging that such details would “ideally” be included.

The performance tables and figures (referenced in the Results section) are mentioned but not thoroughly discussed — there is no analysis of outlier behavior, failed cases, or examples where the model struggled.

The choice of YOLO versions as a progression lacks justification beyond metric improvement. There is no architectural analysis showing why newer YOLO versions perform better, or what trade-offs they introduce (e.g., latency, model size).

The “Comparative Discussion of Results and the Literature” lacks critical comparison with non-YOLO-based models (e.g., EfficientDet, DETR, or Transformer-based approaches), narrowing the comparative scope unnecessarily.

In the Conclusion, the recommendation to “combine pose cues and key points” is repetitive of earlier sections and not elaborated with any implementation roadmap or results indicating its effectiveness.

Ethical considerations such as data privacy, informed consent, and risks of misinterpretation in clinical settings are mentioned briefly at the end but not treated with the necessary depth for a healthcare-focused AI system.

2 attachments



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