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| Journal Name: | [**Asian Journal of Research in Computer Science**](https://journalajrcos.com/index.php/AJRCOS) |
| Manuscript Number: | **Ms\_AJRCOS\_134294** |
| Title of the Manuscript: | **EngageNet: A Model for Evaluating Student Engagement through Facial Expression and Behavior Analysis** |
| Type of the Article | **Original Research Article** |

General guidelines for the Peer Review process:

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| **PART 1: Comments** | | |
|  | **Reviewer’s comment**   1. **It is suggested that an additional section be used to emphasise the limitations of the existing work.** 2. **It is suggested to clarify whether changes in the external environment affect the effectiveness of the model.**   **The article does not adequately discuss the impact of environmental factors (e.g. lighting, background noise, camera quality, etc.) on the accuracy of facial expression recognition and eye tracking. In real online learning environments, differences in students' devices and network environments can significantly affect the performance of the model.**  **It is suggested to add this part accordingly.**   1. **It is recommended that an additional section be used to introduce how the related work will be extended and optimised in the future, i.e. future research directions:**   **Further refinement of emotional states: Currently, the article adopts five emotional states (anger, happiness, neutrality, sadness and surprise), but learners may also experience more subtle emotional changes such as anxiety, confusion or curiosity in online learning. In the future, more refined affective states may be considered for inclusion in the assessment to more accurately reflect learners' psychological changes.** | **Author’s Feedback** *(Please correct the manuscript and highlight that part in the manuscript. 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.** | **INNOVATIVE: This manuscript proposes a deep learning-based multimodal approach to assess learner engagement in online learning environments, combining techniques such as facial expression recognition, eye movement tracking, and eye opening and closing analysis. This approach provides a new and powerful tool for the field of online education to objectively assess learner engagement.**  **Practicality: one of the major challenges currently facing online learning is how to effectively measure learner engagement, especially in virtual environments where there is no direct interaction. The authors' proposed method helps to fill this gap and promotes the progress of online learning assessment methods by introducing new assessment tools.**  **REFERENCE VALUE: The methodology in this paper not only provides a valuable reference for academic research, but also has a wide range of potential applications for the enhancement of educational practices and personalized learning, which can help teachers better understand and improve learner engagement, and thus enhance teaching and learning effectiveness.** |  |
| **Is the title of the article suitable?**  **(If not please suggest an alternative title)** | **Yes** |  |
| **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.** | **No changes to the summary of the article are required** |  |
| **Is the manuscript scientifically, correct? Please write here.** | **Yes** |  |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.** | The references cited in the article are adequate and current |  |

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| **Is the language/English quality of the article suitable for scholarly communications?** | **Yes** |  |
| **Optional/General** comments |  |  |

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| **PART 2:** | | |
|  | **Reviewer’s comment** | **Author’s comment** *(if agreed with the 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?** | No ethical issues were evident. |  |
| **Are there competing interest issues in this manuscript?** | No competing interests issues were identified. |  |
| **If plagiarism is suspected, please provide related proofs or web links.** | No plagiarism issues were identified. |  |

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| **PART 3: Declaration of Competing Interest of the Reviewer:** |
| I declare that I have no competing interest as a reviewer |

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| **PART 4: Objective Evaluation:** | |
| Guideline | MARKS of this manuscript |
| Give OVERALL MARKS you want to give to this manuscript ( Highest: 10 Lowest: 0 )  **Guideline:**  Accept As It Is: (>9-10) Minor Revision: (>8-9)  Major Revision: (>7-8) Serious Major revision: (>5-7)  Rejected (with repairable deficiencies and may be reconsidered): (>3-5) Strongly rejected (with irreparable deficiencies.): (>0-3) | **9** |

Editorial Comments (This section is reserved for the comments from journal editorial office and editors):

Author’s Feedback

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