## **Paper ID - 395**

## A Multi-Model Approach for Classifying Sleep Disorders Utilizing Machine Learning and Deep Learning Techniques.

## **Revision summary:**

The comments have been a helpful starting point for making further improvements to the research. These changes are intended to enhance the study's overall clarity, accuracy, and effectiveness by improving its credibility. The issue with double quotes has been resolved and we have re-edited the relevant sections and made necessary changes to provide a more detailed and precise portrayal of the distribution. The limitations of previous approaches are now successfully addressed in the new abstract, which also highlights the benefits of our hybrid strategy and its novelty. Further citations have been included in the introduction to ensure adequate background information is provided. The well-defined statement of the issue addresses the challenges that current methods still face in reliably identifying sleep disorders. The Related Works section has been simplified by eliminating unnecessary information and keeping only the most important elements. We have highlighted the gaps in earlier research and the areas in need of additional study in the Related Works section. These gaps have been made evident in order to set the scene for our own research and to highlight the importance and uniqueness of our methodology. We have taken care to ensure that the methodology section provides a clear description of the figure along with a thorough grasp of the methodologies used in our study. The descriptions now read more coherently and clearly, which makes it easier to understand the information in the figures. For the comparative table detailing, citations are not required because we individually carried out each individual model and documented its performance metrics on the dataset utilized in our investigation. On the other hand, based on our research and conclusions, we have included correct information to the comparative table that shows how well the various approaches perform. As we summarize the main conclusions and concepts from our research, we have stated our contributions explicitly in the conclusion. This provides a better understanding of the importance of our work. We are dedicated to investigating explainable artificial intelligence (XAI) methods in our upcoming research projects since we see their potential advantages in our work. Although we were unable to use XAI in the current study due to time constraints, we are excited to explore further how these techniques can improve the interpretability and transparency of our model's decision-making procedures.