

# Review of: "Numerical Study of Thermal Performance on Fin and Tube Heat Exchanger with Flat Rectangular and Sinusoidal Winglet Vortex Generators"

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Potential competing interests: No potential competing interests to declare.

Studies on thermal performance of heat exchanger particularly in active and passive methods is extensive in the existing literature. However, the clarity in presenting the methodology enhances the readability of the article. Despite this, the authors failed to explicitly elucidate the practical significance of the results. The manuscript maintains a satisfactory English standard, although there are minor grammatical issues. The results, as portrayed in the manuscript, provide conclusive evidence of the model's accuracy. The reviewer suggests accepting the paper pending resolution or counteraction of the mentioned concerns.

1. Although the study is recognized for its innovation in the introductory chapter, it is noted that certain extensively researched elements are intertwined, which could potentially diminish the significance of the novel contribution.
2. The abstract should be concise and more succinct.
3. Considering the presence of numerous older citations, it is advisable to augment the introduction's up-to-datedness by integrating more recent publications. To improve the quality of your introduction, recent references should be included in this manuscript. A few references need to be updated. I recommend substitute recent published paper instead of old ones.
4. Enhance Figure 1 for better professionalism and detail. Figure 1 lacks clear definition and detail. Additional information should be included, and the overall quality of the figure needs improvement.
1. Explain the reasoning behind selecting specific computational domain dimensions. Please add more detail for computational domain.
2. The manuscript lacks a clear articulation of the practical applications of the study. It is recommended to provide a more explicit explanation, supported by recent literature on the subject.
3. The English of the paper is good enough, but I recommend improve the readability of the paper by a grammar check.
4. The validation of the study is not transparent. It is advisable to conduct validation against other experimental results and incorporate 3D Large Eddy Simulation (LES) simulations.
5. More clarification on the underlying physics driving the observed trends, particularly for thermal performances, is sought. Enhancing the manuscript by offering additional insights into the trends emphasized in the concluding remarks would also fortify its overall quality.

