

# Review of: "Estimation of performance parameters of a counter flow cooling tower using biomass packing"

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**Potential competing interests:** I would like to clarify that the subject dealt with in the thesis is a very important subject, as it is related to improving the efficiency of tube heat exchangers and the enhancement of heat transfer in the air side using multiple kinds of vortex generators

**Manuscript Title:** Numerical Study of Thermal Performance on Fin and Tube Heat Exchanger with Flat Rectangular and Sinusoidal Winglet Vortex Generators

**Manuscript ID:** 8UR337

**First of all, I would like to express my deepest thanks for choosing me as a peer reviewer for your journal**

**I would like to clarify that the subject dealt with in the thesis is a very important subject, as it is related to improving the efficiency of tube heat exchangers and the enhancement of heat transfer in the air side using multiple kinds of vortex generators.**

**After completing the review of the manuscript, I find it necessary to clarify these paragraphs**

1. The conclusions could be more specific and concise, with a clear summary of the main findings and implications.
2. The discussion could be more in-depth and analytical, with more comparisons to existing studies.
3. Consider adding more figures and diagrams to illustrate the results and make the article more engaging.
4. Why don't you perform experiments to validate the numerical results and provide additional insights into the performance of the vortex generators?
5. Why don't you consider investigating the performance of other vortex generator designs and different attack angles?
6. Some figures, particularly the velocity and pressure distributions, could be made larger and clearer to improve readability.
7. The whole manuscript needs to be proofread.
8. Please cite more papers related to this article, for example.

10.1016/j.csite.2023.102859

10.18280/ijht.410211

10.18186/thermal.1429961

Overall, this article is a valuable contribution to the field of heat transfer enhancement. It provides a clear and concise overview of the topic and presents a well-designed numerical study. However, the scope of the study could be expanded,

and experimental validation would be beneficial.