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.

The authors presented a manuscript detailing their research outcomes on the Numerical Study of Thermal Performance on Fin and Tube Heat Exchangers with Flat Rectangular and Sinusoidal Winglet Vortex Generators. The aim of this study is the enhancement of heat transfer on the air side using conventional rectangular and sinusoidal sine wave vortex generators. In this study, three structures—baseline, rectangular, and sinusoidal vortex regulators—have been investigated. However, there are a few concerns that the authors need to address:

- Introduction: In the first paragraph, the report's purpose is presented, which should be transferred to the end of the introduction.
- Literature review: Comprehensive studies have been done on the works of other authors; however, its structure and order should be improved.
- The quality of Figure 1 should be improved, and the dimensions of the computational domain should also be mentioned.
- Governing equations: Why is the fluid considered compressible?
- It is better to provide an image of the meshing.
- Because separation and heat transfer near the wall are important, using the k-w turbulence model is better.
- A validation section should be added to evaluate the accuracy of the numerical results.
- More results should be presented with more explanations (e.g., contours of TKE, temperature, and vorticity magnitude).
- Conclusion: It is better to present quantitative results (paragraph 2).

Therefore, according to the above points (especially the lack of a validation section), this article is not recommended for publication.