## Review Form 1.7

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| Journal Name: | **Current Journal of Applied Science and Technology** |
| Manuscript Number: | **Ms_CJAST_95622** |
| Title of the Manuscript: | **Modelling and simulation of the earth-to-air heat exchanger in laminar air flow regime for the passive cooling of buildings** |
| Type of the Article | **Original Research Article** |

**General guideline for Peer Review process:**

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty'**, provided the manuscript is scientifically robust and technically sound.
To know the complete guideline for Peer Review process, reviewers are requested to visit this link:

(https://www.journalcjast.com/index.php/CJAST/editorial-policy )

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**PART 1: Review Comments**

| | **Reviewer's comment** | **Author's comment** *(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)* |
|---|---|---|
| **Compulsory** REVISION comments<br><br>**1. Is the manuscript important for scientific community?**<br>(Please write few sentences on this manuscript)<br>**Yes. The study is relevant to detain heat of clean way.**<br><br>**2. Is the title of the article suitable?**<br>(If not please suggest an alternative title)<br>**Ok.**<br><br>**3. Is the abstract of the article comprehensive?**<br>**Yes.**<br><br>**4. Are subsections and structure of the manuscript appropriate?**<br>**It would be more didactic if a chart was used in the methodology to explain the simulation and the equations were located in a table.**<br><br>**5. Do you think the manuscript is scientifically correct?**<br>**Yes, but it is important to insert the discretized equations in the annex.**<br><br>**6. Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.**<br>**Ok.**<br><br>**(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)** | **Please, consider the comments below:**<br><br>**1) Amplify the figures.**<br><br>**2) All the graphics must be colour.**<br><br>**3) Detail the physical phenomena in figure 8...why in (b) the temperature for x=4.85 is lower than (d)?**<br><br>**4) One figure (probably 9) was not cited in the text.**<br><br>**5) The heat transfer in the system was considered by forced convection but the author has used Ra number. Explain in the methodology if the natural convection was considered.**<br><br>**6) In equation 13 it is missing one boundary condition for vorticity.** | |
| **Minor** REVISION comments<br><br>**1. Is language/English quality of the article suitable for scholarly communications?**<br>**Yes.** | **1) There are some formatting mistakes that were specified along of the text.**<br>**2) I suggest to improve the organization of the boundaries.**<br>**3) Consider the questions were done along the text.** | |
| **Optional/General** comments | **1) I believe that it more didatic if a summary organization chart was placed at the methodology to explain the input and output parameters and the steps of the simulation.** | |

**PART 2:**

| | **Reviewer's comment** | **Author's comment** *(if agreed with 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?** | *(If yes, Kindly please write down the ethical issues here in details)* | |

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**Reviewer Details:**

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|---|---|
| Name: | **Elisa Pinto da Rocha** |
| Department, University & Country | **UFRJ, Brazil** |