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Judul Artikel : Improving the Performance of a Forced-flow Desalination Unit using a Vortex Generator
Penulis : **Dan Mugisidi**, Oktarina Heriyani.
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Bukti Korespondensi

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Note	From
Dear Dan Mugisidi, Oktarina Heriyani, The editing of your submission, "Improving the Performance of a Forced-flow Desalination Unit Using a Vortex Generator," is complete. We are now sending it to production. Kindly check your manuscript in the attachment, before we publish the manuscript. Please let us know if there are any issues in the manuscript. **ADDITIONAL INFORMATION ARE PROHIBITED IN THE EDITED MANUSCRIPT**. **ISSUE:** Page No.: Problem: Correction: Page No.: Problem: Correction: Please reply "**NO ISSUE**" if the manuscript has no problem. Please provide the email of **ALL** co-	cfd_letters 2024-05-29 09:00 AM

method and **main finding**.

5. At the **last paragraph of the introduction section,** it should **have** the **gap** and **significant of study** before write the **objective** of the study.
6. Nomenclature list should not be written in manuscript. Please write in a **full sentence of abbreviations** for the first time used.
7. Please refer to the CFD Letters Template about how to **present** equations, figures and tables in a manuscript. Besides that, please check on how to **mention** to those equations (**Eq. (X)**), figure (**Figure X**) and table (**Table X**) in a body paragraph.
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11. Citation cannot stand alone as subject or object. It just as a support to a statement. For example, " ..... are taken **from [17, 21-23]**.....", should be written as " ..... are taken **from the previous study [17, 21-23]**..... ". Please CHECK.
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Reviewers' Comments:

Reviewer A:

Paper Review for CFD Letters

Paper Ref.: 27452

Paper Title: Improving the performance of a forced-flow desalination unit using a vortex generator.

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3	In the abstract section, it should have a **short introduction of the background study**, **problem statement**, **objective** of the paper, **briefing about the used method** and **main finding**.	V

4	At the **last paragraph of the introduction section,** it should **have** the **gap** and **significant of study** before write the **objective** of the study.	V
5	Nomenclature list should not be written in manuscript. Please write in a **full sentence of abbreviations** for the first time used.	V
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No.	Reviewer 1	Respond
1	English needs improvement throughout the text	The article has been revised and proofread on Scribendi (https://www.scribendi.com/)
2	In the Abstract, try to use percentages for a better illustration of the obtained results	Percentages have been used to illustrate research results in the abstract
3	Kindly use "The rate of distillation" instead of "The rate of evaporation"; use "condensing it [11]" instead of "recondensing it [11]"; use "stills with reflectors" instead of "stills with added reflectors"; the same observation for concentrators, condensers, and absorbers.; use "few solar stills have used a vortex generator" instead of "no solar still has used a vortex generator".	Thank you for the advice. The sentences in the introduction have been corrected accordingly

4	Solar still operates under natural convection, and there is no need for vortex generators. Concerning the convection air generation inside stills, there are some works using air motion like that given in: https://doi.org/10.1016/0196-8904(91)90144-8 and https://doi.org/10.1016/0196-8904(93)90009-Y	Thank you for the advice. Suggested references have been studied and used to enrich the discussion in the article. Additions were made to the introduction and discussion sections
5	This declaration must be verified “A solar still can produce up to 200 m3”.	This statement has been removed from the article
6	When using a light source, the heating process is by a constant (imposed) heat flux (not by constant temperature).	Thank you for the advice. Improvements have been made to the experimental setup according to the research conditions
7	Why air-flow is not recirculated for the recovering energy and moisture, leaving the condenser (reducing heat/mass losses)?	Because the air coming from the environment is more humid than that coming out of the condenser, so if you use air from the environment we will get higher condensate.
8	Y-label in Fig. 7 must be corrected, and Fig. 2 must be highlighted.	Y-label in Fig 8 already corrected. Figure 2 already highlight in experimental setup.
9	Based on the experimental data, compare the heat transfer coefficients (by evaporation, convective, and radiation) with and without vortex generation.	Base on experimental data, Reynolt number, evaporation coefficient and convective coefficient calculared and compared in Table 2.
10	Limitations associated with the work done and future works may be stated at the end of the conclusion section.	Future research will use heat from solar already added in conclusion

No	Reviewer 2	Respond
1	The 3 page of the manuscript describes the basics of the experimental system, but it does not give the working conditions of the experimental tests, the solar energy input and the environment, please add this part.	This research was conducted indoors. The heat source uses several spotlight units and already stated in experimental setup section.
2	The description of CFD modelling on page 4 is not detailed enough.	CFD modelling description already added to complete existing information
3	The authors need to add the mathematical model of the CFD simulation and list the UDF used, if it exists.	Mathematical model of CFD simulation already added in fourth pages
4	The grid independence analyses in Table 1 only list comparisons of water levels, which is clearly insufficient. The most important parameters for desalination are temperature and evaporation rate, which should also be compared to ensure that the grid is sufficiently accurate	Thank you for the advice. Grid independence is reset using temperature as a parameter

5	Two Table 1 have appeared on page 5, please correct them	Table 1 on page 5 already corrected
6	Comparative analyses of experiments and simulations need to be added to the paper in order to enhance persuasiveness	The explanation in the results section has been corrected
7	The temperature bar in Figure 5b actually reaches a maximum temperature of 246.75°C, which is clearly incorrect. Please check if this is because the CFD simulation results have not converged?	Thank you for your advice, I miss this part. I missed this part. Previously the scale of both images had not been set. Currently the scale of the two images is equalized using the smallest scale to make it easier to compare them
8	For desalination systems, *GOR* is an important indicator for evaluating the system's excellent energy efficiency, so please add a discussion of solar still's *GOR* situation.	Performance of the system also can be expressed with efficiency as well as GOR. I put both expression in result discussion.
9	The performance of only two test units is compared in Table 3, and the authors need to add comparisons with the various types of new desalination systems available	Table 3 already added for comparison with other researcher

Notifications ×

[CFD Lett.] Editor Decision

2024-01-22 06:26 AM

Dan Mugisidi, Oktarina Heriyani:

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