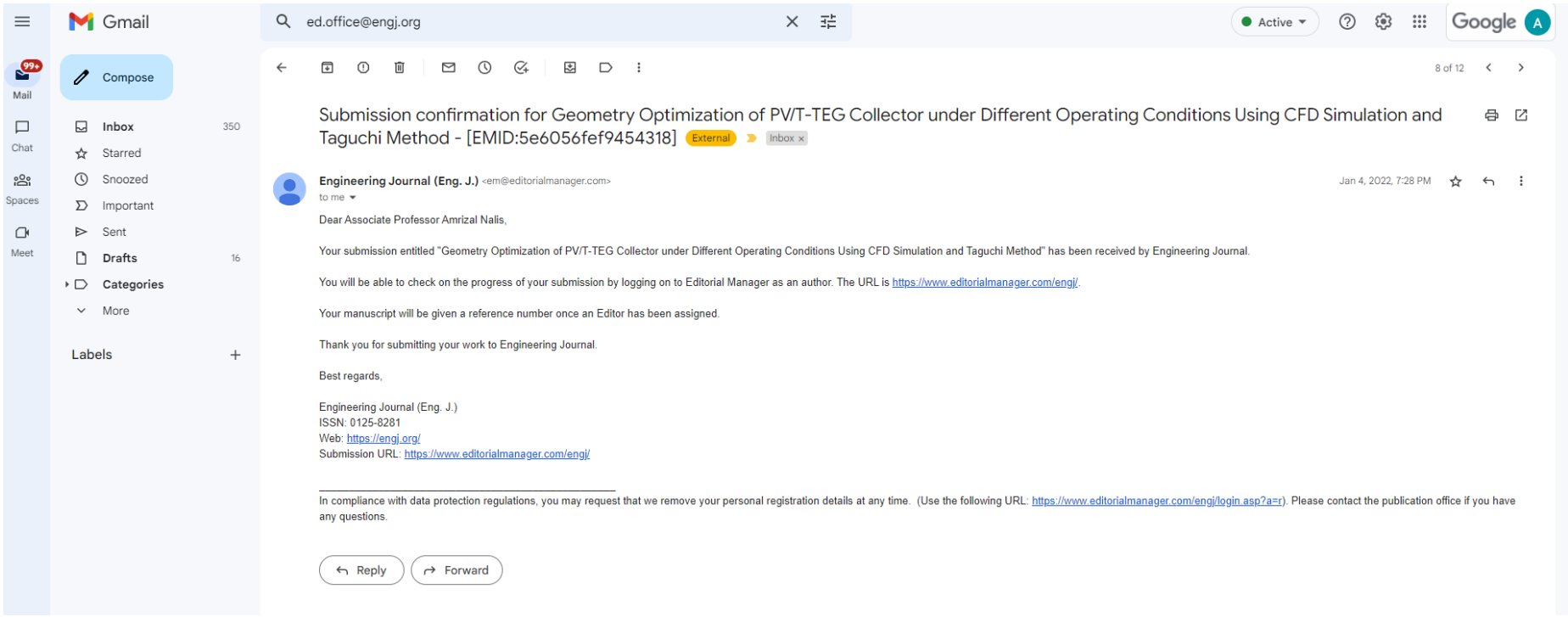

Gmail
ed.office@engj.org
Active
Google
Compose
Inbox 350
Starred
Snoozed
Important
Sent
Drafts 16
Categories
More
Labels
Mail
Chat
Spaces
Meet
8 of 12
Submission confirmation for Geometry Optimization of PV/T-TEG Collector under Different Operating Conditions Using CFD Simulation and Taguchi Method - [EMID:5e6056fef9454318]
External
Inbox ×
Engineering Journal (Eng. J.) <em@editorialmanager.com>
to me
Jan 4, 2022, 7:28 PM
Dear Associate Professor Amrizal Nalis,
Your submission entitled "Geometry Optimization of PV/T-TEG Collector under Different Operating Conditions Using CFD Simulation and Taguchi Method" has been received by Engineering Journal.
You will be able to check on the progress of your submission by logging on to Editorial Manager as an author. The URL is https://www.editorialmanager.com/engj/.
Your manuscript will be given a reference number once an Editor has been assigned.
Thank you for submitting your work to Engineering Journal.
Best regards,
Engineering Journal (Eng. J.)
ISSN: 0125-8281
Web: https://engj.org/
Submission URL: https://www.editorialmanager.com/engj/
In compliance with data protection regulations, you may request that we remove your personal registration details at any time. (Use the following URL: https://www.editorialmanager.com/engj/login.asp?a=r). Please contact the publication office if you have any questions.
Reply
Forward

Submission confirmation for Geometry Optimization of PV/T-TEG Collector under Different Operating Taguchi Method - [EMID:5e6056fef9454318]

External Inbox ×

Engineering Journal (Eng. J.) <em@editorialmanager.com>
to me

Dear Associate Professor Amrizal Nalis,

Your submission entitled "Geometry Optimization of PV/T-TEG Collector under Different Operating Conditions Using CFD Simulation and Taguchi Method" has been received

You will be able to check on the progress of your submission by logging on to Editorial Manager as an author. The URL is https://www.editorialmanager.com/engj/.

Your manuscript will be given a reference number once an Editor has been assigned.

Thank you for submitting your work to Engineering Journal.

Best regards,

Engineering Journal (Eng. J.)
ISSN: 0125-8281
Web: https://engj.org/
Submission URL: https://www.editorialmanager.com/engj/

Reply Forward

A manuscript number has been assigned to Geometry Optimization of PV/T-TEG Collector under Simulation and Taguchi Method - [EMID:a1b0b564986983bf] External Inbox ×

Engineering Journal (Eng. J.) <em@editorialmanager.com>
to me

CC: "Angga Darma Prabowo" angga.dprabowo@gmail.com, "Gusri Akhyar Ibrahim" gusri.akhyar@eng.unila.ac.id

Dear Associate Professor Amrizal Nalis,

Your submission entitled "Geometry Optimization of PV/T-TEG Collector under Different Operating Conditions Using CFD Simulation and Taguchi Method" has been a

You will be able to check on the progress of your paper by logging on to Editorial Manager as an author.

The URL is https://www.editorialmanager.com/engj/.

Thank you for submitting your work to Engineering Journal.

Best regards,

Engineering Journal (Eng. J.)
ISSN: 0125-8281
Web: https://engj.org/
Submission URL: https://www.editorialmanager.com/engj/

Editor decision on your submission ENGJ-D-22-00010 - [EMID:67dc58982609219a]

External Inbox ×

Engineering Journal (Eng. J.) <em@editorialmanager.com> Wed, Jun 22, 10:33 AM

to me

Ref.: ENGJ-D-22-00010
Title: Geometry Optimization of PV/T-TEG Collector under Different Operating Conditions Using CFD Simulation and Taguchi Method
Corr. Author: Associate Professor Amrizal Nalis

Dear Associate Professor Amrizal Nalis,

Our reviewers have now commented on your paper. You will see that they are advising you to revise your manuscript. If you are prepared to undertake the work required, I would be pleased to reconsider my decision.

For your guidance, reviewers' comments are appended below.

If you decide to revise the work, please submit a list of changes or a rebuttal against each point which is being raised when you submit the revised manuscript. Whenever possible, please consider citing articles published by Engineering Journal.

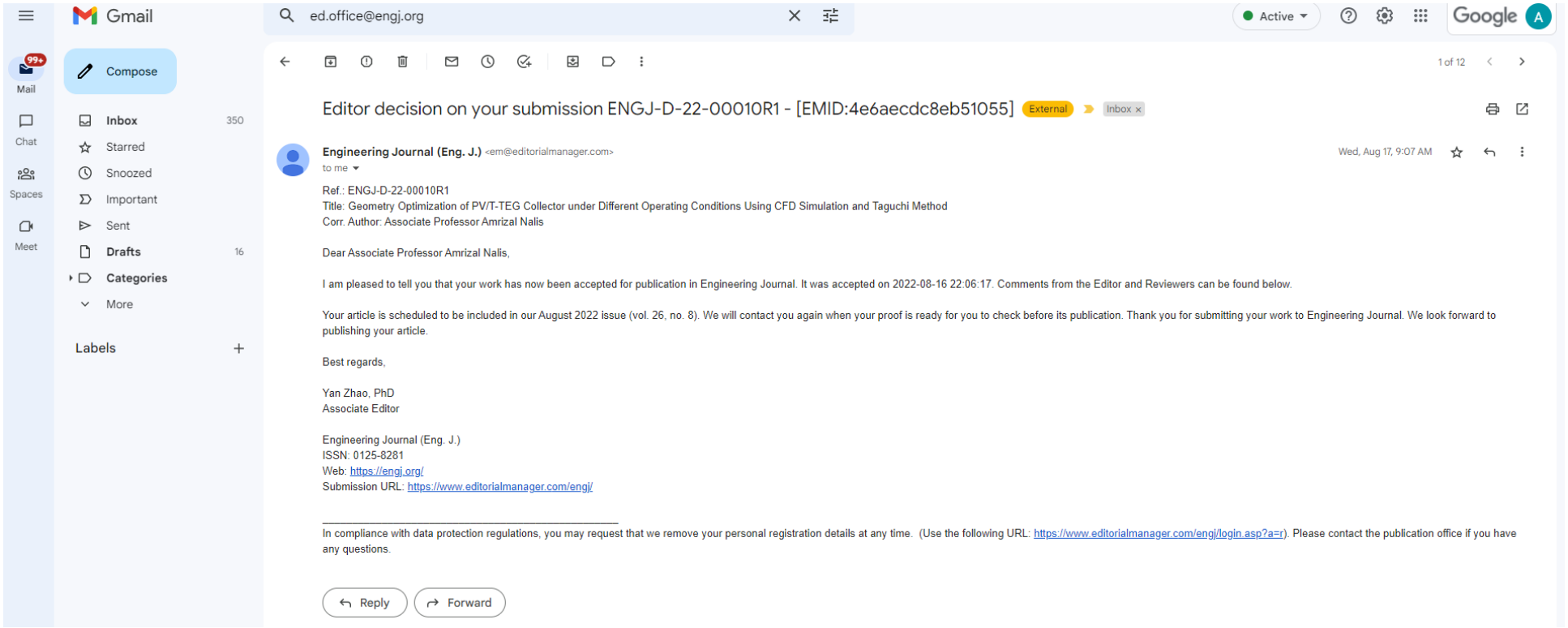
Your revision is due by 2022-07-21 23:59:59.

To submit a revision, go to https://www.editorialmanager.com/engj/ and log in as an Author. You will see a menu item call Submission Needing Revision. You will find your submission record there.

Best regards,

Yan Zhao, PhD
Associate Editor

Engineering Journal (Eng. J.)
ISSN: 0125-8281
Web: https://engj.org/
Submission URL: https://www.editorialmanager.com/engj/


Gmail
ed.office@engj.org
Active
Google
Compose
Inbox 350
Starred
Snoozed
Important
Sent
Drafts 16
Categories
More
Labels
Mail
Chat
Spaces
Meet
1 of 12
Editor decision on your submission ENGJ-D-22-00010R1 - [EMID:4e6aecdc8eb51055]
External
Inbox ×
Engineering Journal (Eng. J.) <em@editorialmanager.com>
to me
Wed, Aug 17, 9:07 AM
Ref.: ENGJ-D-22-00010R1
Title: Geometry Optimization of PV/T-TEG Collector under Different Operating Conditions Using CFD Simulation and Taguchi Method
Corr. Author: Associate Professor Amrizal Nalis
Dear Associate Professor Amrizal Nalis,
I am pleased to tell you that your work has now been accepted for publication in Engineering Journal. It was accepted on 2022-08-16 22:06:17. Comments from the Editor and Reviewers can be found below.
Your article is scheduled to be included in our August 2022 issue (vol. 26, no. 8). We will contact you again when your proof is ready for you to check before its publication. Thank you for submitting your work to Engineering Journal. We look forward to publishing your article.
Best regards,
Yan Zhao, PhD
Associate Editor
Engineering Journal (Eng. J.)
ISSN: 0125-8281
Web: https://engj.org/
Submission URL: https://www.editorialmanager.com/engj/
In compliance with data protection regulations, you may request that we remove your personal registration details at any time. (Use the following URL: https://www.editorialmanager.com/engj/login.asp?a=r). Please contact the publication office if you have any questions.
Reply
Forward

Reviewer 1: Reviewer's general comment: The work focused on Geometry Optimization of PV/T-TEG Collector under Different Operating Conditions Using CFD Simulation and Taguchi Method. The manuscript is within the scope of the Journal. In order to help improve the paper quality, my suggestions and comments are shown below.
1) Abstract: qualitative results with quantitative data are necessary to support the contribution of the work.
2) Highlights: should be within 85 characters.
3) More references with latest papers are necessary to enhance the readability of this study.
4) Scientific gaps are not clear and the originality is not straigtforward.
5) Fig. 1, the process is confusing. Any experimental study for CFD model validation? Furthermore, as there are several different scenarios with different setting parameters, which scenario will be selected to be the validation case?
6) The PV/T-TEG system can generate both thermal and electrical energy. The dual functions on solar-to-power and thermal-to-power can further enhance the power efficiency. It is necessary to provide both thermal/electrical energy and efficiency of the system, together with parametrical analysis.
7) This study proposes a new structure with TEG techniques. Compared to cooling systems with PCMs or other nano heat transfer fluids, what are advantages and disadvantages of the PV/T-TEG system?
8) This paper is interesting and the comparison with latest techniques can further increase the attractiveness of this manuscript.
Multi-level uncertainty optimisation on phase change materials integrated renewable systems with hybrid ventilations and active cooling. Energy, 2020
Passive and active phase change materials integrated building energy systems with advanced machine-learning based climate-adaptive designs, intelligent operations, uncertainty-based analysis and optimisations: A state-of-the-art review. Renewable & Sustainable Energy Reviews 2020
A state-of-the-art-review on phase change materials integrated cooling systems for deterministic parametrical analysis, stochastic uncertainty-based design, single and multi-objective optimisations with machine learning applications. Energy and Buildings 2020.
A review on cooling performance enhancement for phase change materials integrated systems—flexible design and smart control with machine learning applications. Building and Environment 2020.
Overall, the topic of this study is attractive and important. The manuscript is well-written and organised. Research skills, innovation and contribution are good but need to be improved. Hope the comments can be helpful to improve the paper quality.

Reviewer 2:

Should address clearly the simulation work by showing the image of boundary conditions, solar load model (s2s/DO/etc), grid independent test,

Required to mention ANSYS software license (version).

Should state clearly the PVT in this project producing what type of useful heat, either air or water. If hot air is the output from the PVT, the design must be enclosed on the bottom to enable the flowing air harvest/collecting hot fin from TEG.

Recommend to include statement of heat transfer from the PV towards the TEG fin in the introduction part. It may give the better understanding to a reader the present of the TEG.

The results to come out with the conclusion of optimization of design and parameter considerably not extensive. It need to show the limit lower and upper before determining the optimize conditions.

AMRIZAL NALIS <amrizal@eng.unila.ac.id> Jul 23, 2022, 9:59 PM

to Engineering

Dear Yan Zhao, PhD

Thank you for giving me the opportunity to submit a revised draft of my manuscript titled "*Geometry Optimization of PV/T-TEG Collector under Different Operating Conditions Using CFD Simulation and Taguchi Method*" to *Engineering Journal*. We appreciate the time and effort that you and the reviewers have dedicated to providing your valuable feedback on my manuscript. We are grateful to the reviewers for their insightful comments on my paper. We have been able to incorporate changes to reflect most of the suggestions provided by the reviewers. We have highlighted the changes within the manuscript.

Here is a point-by-point response to the reviewers' comments and concerns

Comments from Reviewer 1

Comment 1: *[Abstract: qualitative results with quantitative data are necessary to support the contribution of the work.]*
Response: Thank you for pointing this out. We agree with this comment. Therefore, we have added the quantitative data at the end of the abstract

Comment 2: *[Highlights: should be within 85 characters.]*
Response: Thank you for this suggestion. It would have been interesting to provide this aspect. However, in the case of journal template, there is no space available to add the highlights.

Comment 3: *[More references with latest papers are necessary to enhance the readability of this study.]*
Response: We agree with this and have incorporated your suggestion. We have added and cited several latest papers throughout the manuscript.

Comment 4: *[Scientific gaps are not clear and the originality is not straigtforward.]*
Response: We have, accordingly, revised the scientific gaps to emphasize the originality in the introduction of manuscript.

Comment 5: *[Fig. 1, the process is confusing. Any experimental study for CFD model validation? Furthermore, as there are several different scenarios with different setting parameters, which scenario will be selected to be the validation case?]*
Response: Thank you for pointing this out and we have revised and changed the content of the Fig. 1 to avoid the confusing of the process. The process validation of CFD software is only done once at the beginning by comparing the result between CFD simulation and experimental process with the same model and the same boundary conditions. In this case, the experimental data are obtained from the reference 33. Once the CFD software (Ansys) is valid, it is not necessary to validate the software again. The validation procedure itself is completely explained in the chapter 3.1.

Comment 6: *[The PV/T-TEG system can generate both thermal and electrical energy. The dual functions on solar-to-power and thermal-to-power can further enhance the power efficiency. It is necessary to provide both thermal/electrical energy and efficiency of the system, together with parametrical analysis.]*
Response: Thank you for this suggestion. It would have been interesting to explore this aspect. However, in the case of our study, it seems slightly out of the CFD numerical software available. For that reason, the analysis is only suitable for the thermal part especially with the two responses (temperatures of PV panel and TEG sides). Even though, due to the dual functions of this type collector, the parametric of electrical also have included in the section 2.4 Model Geometry of manuscript to complete the electrical part.

Comment 7: *[This study proposes a new structure with TEG techniques. Compared to cooling systems with PCMs or other nano heat transfer fluids, what are advantages and disadvantages of the PV/T-TEG system?]*
Response: Thank you for this suggestion. We have compared and explained in the introduction of manuscript the advantages and disadvantages of the PV/T-TEG system in terms of structure, working fluid, manufacturing process and material.

Comment 8: *[This paper is interesting and the comparison with latest techniques can further increase the attractiveness of this manuscript?]*
Response: Thank you for pointing this out. We have compared other latest techniques in cooling system especially PCM integrated renewable systems with hybrid ventilations and active cooling, passive and active phase change materials, phase change materials integrated cooling systems and cooling performance enhancement for phase change materials.

Comments from Reviewer 2

Comment 1: *[Should address clearly the simulation work by showing the image of boundary conditions, solar load model (s2s/DO/etc), grid independent test.]*
Response: Thank you for pointing this out. We agree with this comment. Therefore, we have added the image of boundary conditions, solar load model, grid independent test in section 2.4. Numerical Simulation of the manuscript

Comment 2: *[Required to mention ANSYS software license (version).]*
Response: Thank you for this suggestion. We have mentioned the ANSYS software version in section 2.4 Numerical Simulation of the manuscript.

Comment 3: *[Should state clearly the PVT in this project producing what type of useful heat, either air or water. If hot air is the output from the PVT, the design must be enclosed on the bottom to enable the flowing air harvest/collecting hot fin from TEG.]*
Response: We agree with this and have incorporated your suggestion. Since air used as a working fluid in the present study, we have designed the rectangular channel which is enclosed on each of collector sides as shown in Fig.2 and Fig.4.

Comment 4: *[Recommend to include statement of heat transfer from the PV towards the TEG fin in the introduction part. It may give the better understanding to a reader the present of the TEG.]*
Response: Thank you for pointing this out. We have included statement of heat transfer from the PV towards the TEG fin in the introduction part.

Comment 5: *[The results to come out with the conclusion of optimization of design and parameter considerably not extensive. It needs to show the limit lower and upper before determining the optimize conditions.]*
Response: We agree with this and have incorporated your suggestion. We have explained the limit lower and upper related to optimize conditions in the conclusion part.

We look forward to hearing from you in due time regarding our submission and to respond to
any further questions and comments you may have.
Sincerely,

Amrizal

•••

← **Submissions with an Editorial Office Decision for Author**

Page: 1 of 1 (1 total completed submissions)

Results per page 10

Action	Manuscript Number	Title	Initial Date Submitted	Status Date	Current Status	Date Final Disposition Set	Final Disposition
View Submission Author Status View Decision Letter Correspondence Send E-mail	ENGJ-D-22-00010	Geometry Optimization of PV/T-TEG Collector under Different Operating Conditions Using CFD Simulation and Taguchi Method	2022-01-04 07:28:17	2022-08-22 03:20:50	Completed Accept	2022-08-22 03:20:50	Accept

P d submissions)

Results per page 10

View Letter

Close

Date: 2022-08-16 22:06:19
To: "Amrizal Nalis" amrizal@eng.unila.ac.id
From: "Engineering Journal (Eng. J.)" ed.office@engj.org
Subject: Editor decision on your submission ENGJ-D-22-00010R1

Ref.: ENGJ-D-22-00010R1
Title: Geometry Optimization of PV/T-TEG Collector under Different Operating Conditions Using CFD Simulation and Taguchi Method
Corr. Author: Associate Professor Amrizal Nalis

Dear Associate Professor Amrizal Nalis,

I am pleased to tell you that your work has now been accepted for publication in Engineering Journal. It was accepted on 2022-08-16 22:06:17. Comments from the Editor and Reviewers can be found below.

Your article is scheduled to be included in our August 2022 issue (vol. 26, no. 8). We will contact you again when your proof is ready for you to check before its publication. Thank you for submitting your work to Engineering Journal. We look forward to publishing your article.

Best regards,

Yan Zhao, PhD
Associate Editor

Engineering Journal (Eng. J.)
ISSN: 0125-8281
Web: https://engj.org/
Submission URL: https://www.editorialmanager.com/engj/

****

Close