

Proof Reading before Publication (ID:14823067)-Analysis of Energy Audit of the Educational Buildings in Palembang Indonesia

Yahoo/Inbox

Anthony Robinson <revision.hrpub@gmail.com>

To:Heni Fitriani

Thu, Apr 22, 2021 at 2:48 PM

Dear Heni Fitriani,

Your manuscript has been accepted for publication. Authors are given a chance of checking the attached manuscript before publication. If we don't receive any confirmation or feedback of the manuscript before 04/25/2021, it will be regarded as the final version.

* Please carefully check the whole manuscript to ensure consistency and accuracy in grammar, spelling, punctuation and formatting.

All revisions should be highlighted on the attached manuscript.

Best Regards

Anthony Robinson
Editorial Assistant
revision.hrpub@gmail.com
Horizon Research Publishing, USA
<http://www.hrpub.org>

Dear Heni Fitriani,

Thank you for your email.
We have received the final version of your paper.

Best Regards

Anthony Robinson
Editorial Assistant
revision.hrpub@gmail.com
Horizon Research Publishing, USA
<http://www.hrpub.org>

Revision after Peer Review (ID:14823067)-Analysis of Energy Audit of the Educational Buildings in Palembang Indonesias

Yahoo/Inbox

Anthony Robinson <revision.hrpub@gmail.com>

To: Heni Fitriani

Wed, Mar 24, 2021 at 4:49 PM

Dear Heni Fitriani,

Thank you for your interest in publishing your work in HRPUB.

Your manuscript has now been peer reviewed and the comments are accessible in Word format. Peer review reports are also downloadable in Online Manuscript Tracking System (<http://www.hrpub.org/submission/login.php>).

We would be grateful if you could address the comments of the reviewers in a revised manuscript and answer all questions raised by reviewers in a cover letter. Any revision should be made on the attached manuscript.

Note:

1. In addition to necessary revisions, please note that the similarity index of the revised version should be lower than 18% and similarity from a single source should not exceed 5%.

2. Based on the theme of your manuscript, we would like to recommend the following published articles for your reference. If it is useful in enriching your manuscript, you can cite them in your manuscript. If not, just ignore it.

Optimization of Thermal Behavior and Energy Efficiency of a Residential House Using Energy Retrofitting in Different Climates <https://doi.org/10.13189/cea.2020.080318>
Life Cycle Energy Assessment (LCEA) Approach: A Prospect for Sustainable Architecture in Developing Countries <https://doi.org/10.13189/cea.2020.080505>

Please download the publication agreement (http://www.hrpub.org/download/HRPUB_Publication_Agreement2021.pdf) and fill in the authors' names, manuscript title, manuscript ID and signature, then send a scanned version to us.

Please submit the revised paper to us by email in MS Word or LaTeX format within two weeks and do not submit it into the Online Manuscript Tracking System.

The author will be requested to pay the Article Processing Charges after the manuscript is accepted for publication. For the charging standard, please refer to http://www.hrpub.org/journals/jour_charge.php?id=48

Look forward to receiving your revised manuscript as soon as possible.

Please acknowledge receipt of this email.

Best Regards

Anthony Robinson
Editorial Assistant
revision.hrpub@gmail.com
Horizon Research Publishing, USA
<http://www.hrpub.org>

Heni Fitriani <henifitriani79@yahoo.com>

To:Anthony Robinson

Thu, Mar 25, 2021 at 8:09 AM

Thank you for the email. I will revise the manuscript and send it asap. Thanks.

Heni

Heni Fitriani <henifitriani79@yahoo.com>

To:Anthony Robinson

Cc:Sherley Miller

Sun, Apr 11, 2021 at 4:35 AM

Dear Editor,

Please find attached the revisions of my paper. I attached some files (manuscript revision, revision with highlight, cover letter and response to viewer, publication agreement and Turnitin results). Please let me know if you get this email. Thank you.

Regards,
Heni

Anthony Robinson <revision.hrpub@gmail.com>

To:Heni Fitriani

Cc:Sherley Miller

Mon, Apr 12, 2021 at 8:08 AM

Dear Heni Fitriani,

Thank you for your kind email.

We have received your revised paper and all other related documents. If further revision is not required, you will expect an Acceptance Letter in a week.

Best Regards

Anthony Robinson

Editorial Assistant

revision.hrpub@gmail.com

Horizon Research Publishing, USA

<http://www.hrpub.org>

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Best Regards

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Editorial Assistant
revision.hrpub@gmail.com
Horizon Research Publishing, USA
<http://www.hrpub.org>

Heni Fitriani <henifitriani79@yahoo.com>

To:Anthony Robinson

Fri, Apr 23, 2021 at 7:58 AM

Dear Editor,

Please find attached the proof reading with highlighted and final version. Please use this final version for publication.

The Title has been changed into: Energy Analysis of the Educational Building in Palembang Indonesia. Thank you so much.

Regards,
Heni

Anthony Robinson <revision.hrpub@gmail.com>

To:Heni Fitriani

Fri, Apr 23, 2021 at 8:18 AM

Dear Heni Fitriani,

Thank you for your email.
We have received the final version of your paper.

Best Regards

Anthony Robinson
Editorial Assistant
revision.hrpub@gmail.com
Horizon Research Publishing, USA
<http://www.hrpub.org>

Revision after Peer Review (ID:14823067)-Analysis of Energy Audit of the Educational Buildings in Palembang Indonesias

Yahoo/Inbox

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2. Based on the theme of your manuscript, we would like to recommend the following published articles for your reference. If it is useful in enriching your manuscript, you can cite them in your manuscript. If not, just ignore it.

Optimization of Thermal Behavior and Energy Efficiency of a Residential House Using Energy Retrofitting in Different

Climates <https://doi.org/10.13189/cea.2020.080318>

Life Cycle Energy Assessment (LCEA) Approach: A Prospect for Sustainable Architecture in Developing Countries <https://doi.org/10.13189/cea.2020.080505>

Please download the publication agreement (http://www.hrpub.org/download/HRPUB_Publication_Agreement2021.pdf) and fill in the authors' names, manuscript title, manuscript ID and signature, then send a scanned version to us.

Please submit the revised paper to us by email in MS Word or LaTeX format within two weeks and do not submit it into the Online Manuscript Tracking System.

The author will be requested to pay the Article Processing Charges after the manuscript

is accepted for publication. For the charging standard, please refer to http://www.hrpub.org/journals/jour_charge.php?id=48

Look forward to receiving your revised manuscript as soon as possible.

Please acknowledge receipt of this email.

Best Regards

Anthony Robinson
Editorial Assistant
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Heni Fitriani

...<https://doi.org/10.13189/cea.2020.080318> Life Cycle...

Thu, Mar 25, 2021 at 8:09 AM

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Anthony Robinson

...<https://doi.org/10.13189/cea.2020.080318> Life Cycle...

Thu, Mar 25, 2021 at 12:48 PM

•

Heni Fitriani

...<https://doi.org/10.13189/cea.2020.080318> Life Cycle...

Sun, Apr 11, 2021 at 4:35 AM

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To:Heni Fitriani

Cc:Sherley Miller

Mon, Apr 12, 2021 at 8:08 AM

Dear Heni Fitriani,

Thank you for your kind email.

We have received your revised paper and all other related documents. If further revision is not required, you will expect an Acceptance Letter in a week.

Best Regards

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Horizon Research Publishing, USA
<http://www.hrpub.org>

Anthony Robinson <revision.hrpub@gmail.com>

To: Heni Fitriani

Thu, Mar 25, 2021 at 12:48 PM

Dear Heni Fitriani,

Thank you for your reply.
Looking forward to receiving your revised paper. Please send your revised paper and cover letter to us via email after you finish it.

Best Regards

Anthony Robinson
Editorial Assistant
revision.hrpub@gmail.com
Horizon Research Publishing, USA
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Anthony Robinson <revision.hrpub@gmail.com>

To: Heni Fitriani

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Best Regards

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Horizon Research Publishing, USA
<http://www.hrpub.org>



Acceptance Letter

Dear Heni Fitriani,

Congratulations! As a result of the reviews and revisions, we are pleased to inform you that your following paper has been accepted for publication.

Paper Title: Energy Analysis of the Educational Building in Palembang Indonesia

Paper ID: 14823067

Contributor (s): Heni Fitriani, Muhammadiya Rifki, Citra Indriyati, Aditya Rachmadi, Ahmad Muhtarom

It is scheduled for publication on Civil Engineering and Architecture, Vol 9, No 3.

The publication fee \$ 240 should be paid within 2 weeks.

Should you have any questions, please feel free to let us know by quoting your **Paper ID** in any future inquiries.

Best wishes,



John Thompson

editorialboard@hrpub.org

Journal Manager

Horizon Research Publishing, USA

<http://www.hrpub.org>



Peer Review Report

Notes

Please return the completed report by email within 21 days;

| About HRPUB | |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p>Horizon Research Publishing, USA (HRPUB) is a worldwide open access publisher serving the academic research and scientific communities by launching peer-reviewed journals covering a wide range of academic disciplines. As an international academic organization for researchers & scientists, we aim to provide researchers, writers, academic professors and students the most advanced research achievements in a broad range of areas, and to facilitate the academic exchange between them.</p> | |
| Manuscript Information | |
| Manuscript ID: | 14823067 |
| Manuscript Title: | Analysis of Energy Audit of the Educational Buildings in Palembang Indonesia |
| Evaluation Report | |
| General Comments | <p>The theme of the paper is relevant and emphasizes the need to improve the energy efficiency of buildings and conserve resources. Thus, the research is of relevance to modern science.</p> |
| Advantage & Disadvantage | <p>The advantages of paper include the author's appeal to the problems of energy efficiency in educational buildings. In the field of education, saving resources has not only an economic, but also a social effect. This allows savings to be channeled to other social goals or to increase effective spending on education. Also of interest is the brief overview of research on the problem given by the author.</p> <p>Disadvantages of paper:</p> <ol style="list-style-type: none">1. The abstract of the paper does not contain information about what is new proposed by the authors for research and solution of the problem.2. The paper gives the impression that it does not carry elements of scientific novelty or new knowledge - the energy consumption of a one standard building was simply estimated using a known method. In the conclusions, the author limited himself to stating the fact that the building under study is not energy |

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| | <p>efficient. The possible use of the results is described in several words in one sentence.</p> <p>Based on the study, we can conclude that the inefficient energy consumption of a building is determined by the electronic equipment installed in it, that is, if we take out all the electronic equipment (computers, etc.), then we will solve this problem. However, the availability of equipment in a building is determined by the technology of the teaching process and the purpose of the building (computer class). In this regard, when calculating the intensity of energy use by a building, it is incorrect to take into account the amount of energy consumed by equipment that is not inextricably linked with the building, is not its component (like HVAC, for example).</p> <p>Of course, the installed equipment can indirectly affect the energy efficiency of the building - by heating the air, causing the need for additional lighting, etc. In this case, it should be possible to assess this impact and propose recommendations for reducing this impact. In addition, the energy consumption of electronic equipment determines the cost of paying for it. It was necessary to develop recommendations for the replacement, modernization of such equipment in order to reduce the total energy consumption of the university buildings.</p> <p>3. Error in the caption to figure 1 - apparently, the author did not mean «Perfective», but «Perspectives».</p> |
| How to improve | <p>1. In the “Literature Review” the author provides information on various tools and methods for assessing energy consumption by buildings. It is desirable to explain why the described software was not used in the study. Also explain why the author settled on the applied method, describe its advantages and disadvantages in comparison with the methods described in the review.</p> <p>2. It is necessary to calculate the impact on energy efficiency of factors directly related to the building - lighting and air conditioning. If we take away the energy consumption of electronic equipment from the calculations, the EUI value for the first floor will be 16.35, for the second - 15.41, which will classify this building as a building that tends to be inefficient. At the end of the work, it is necessary to determine the potential for saving energy, the model of its use (perhaps this building is not suitable for such use), and an energy-efficient design. Indicate what can be done to make the building energy efficient.</p> <p>3. Explain the results obtained in the study, what factors influence them positively or negatively (possibly related to the characteristics of the building</p> |

| | |
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| | <p>(wall material, building age, etc.), the characteristics of the HVAC equipment, climate, etc.), whether it is possible to influence changing these factors.</p> <p>4. The analysis of energy consumption of the building under study in previous periods may require attention - were there any changes in the configuration, equipment of the building, how they could affect its energy efficiency. However, such an analysis can be presented in another study.</p> <p>5. It would be interesting to compare the results obtained in the study with the results of studies [15] and [16].</p> |
| Please rate the following: (1 = Excellent) (2 = Good) (3 = Fair) (4 = Poor) | |
| Originality: | 2 |
| Contribution to the Field: | 4 |
| Technical Quality: | 3 |
| Clarity of Presentation : | 1 |
| Depth of Research: | 3 |
| Recommendation | |
| Kindly mark with a ■ | |
| <input type="checkbox"/> Accept As It Is | |
| <input type="checkbox"/> Requires Minor Revision | |
| <input checked="" type="checkbox"/> Requires Major Revision | |
| <input type="checkbox"/> Reject | |

Return Date:

Department of Civil Engineering
Universitas Sriwijaya

Inderalaya, Indonesia
E-mail: heni.fitriani@unsri.ac.id; henifitriani79@yahoo.com

11th April 2021

The Editor-in-Chief
Civil Engineering and Architecture

Dear Editor,

Please find attached a full manuscript for review and publication in the Journal of Engineering, Design and Technology. The manuscript is titled: “**Energy Analysis of the Educational Building in Palembang Indonesia**”.

This study aims to investigate the energy consumption of existing buildings located in Palembang as compared to the benchmark of Indonesian Standard for educational buildings. This paper also develops an energy analysis model with BIM integration to produce accurate predictions of the educational building performance with better scenarios. The EUI calculations were carried out in two ways.

The authors have no conflict of interest to declare.

Please, a quick turnover regarding the review of the manuscript and subsequent publication would be greatly appreciated.

Should you require further information, please feel free to contact me at the above e-mail address.

Kind Regards,

Dr. Heni Fitriani
Assistant Professor in Construction Management
Universitas Sriwijaya

RESPONSE OF REVIEWERS

Paper Title: Energy Analysis of the Educational Building in Palembang Indonesia

Paper No: 14823067

The above paper was reviewed and the reviewers made some observations. We found that the observations were genuine and would improve readability of the paper as well as to conform to the style of the journal. As required, we itemize the comments of the reviewers as follows and make clarifications in some areas.

| S/N | Reviewer 1's Comments | Our Response |
|-----|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | The theme of the paper is relevant and emphasizes the need to improve the energy efficiency of buildings and conserve resources. Thus, the research is of relevance to modern science. | Thank you for the comments |
| 2 | The abstract of the paper does not contain information about what is new proposed by the authors for research and solution of the problem. | We have added more analysis using BIM model and abstract has been improved |
| 3 | The paper gives the impression that it does not carry elements of scientific novelty or new knowledge - the energy consumption of a one standard building was simply estimated using a known method. In the conclusions, the author limited himself to stating the fact that the building under study is not energy efficient. The possible use of the results is described in several words in one sentence. Based on the study, we can conclude that the inefficient energy consumption of a building is determined by the electronic equipment installed in it, that is, if we take out all the electronic equipment (computers, etc.), then we will solve this problem. However, the availability of equipment in a building is determined by the technology of the teaching process and the purpose of the building (computer class). In this regard, when calculating the intensity of energy use | Thank you for the suggestions. We have improved the analysis using 3D modeling and analyzed the EUI based on some scenarios and reported the best scenario to improve the design. The novelty in this paper is that the use of BIM model and some scenarios developed. All major revisions have been corrected as seen in the manuscript. |

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| | <p>by a building, it is incorrect to take into account the amount of energy consumed by equipment that is not inextricably linked with the building, is not its component (like HVAC, for example).</p> <p>Of course, the installed equipment can indirectly affect the energy efficiency of the building - by heating the air, causing the need for additional lighting, etc. In this case, it should be possible to assess this impact and propose recommendations for reducing this impact. In addition, the energy consumption of electronic equipment determines the cost of paying for it. It was necessary to develop recommendations for the replacement, modernization of such equipment in order to reduce the total energy consumption of the university buildings.</p> | |
| 4 | <p>Error in the caption to figure 1 - apparently, the author did not mean «Perfective», but «Perspectives».</p> | <p>We have fixed this.</p> |
| | <p>In the “Literature Review” the author provides information on various tools and methods for assessing energy consumption by buildings. It is desirable to explain why the described software was not used in the study. Also explain why the author settled on the applied method, describe its advantages and disadvantages in comparison with the methods described in the review.</p> | <p>We have revised and used the soft wares: Revit, Energy plus and Green Building Studio (GBS) to improve the discussions in this paper.</p> |
| 5 | <p>It is necessary to calculate the impact on energy efficiency of factors directly related to the building - lighting and air conditioning. If we take away the energy consumption of electronic equipment from the calculations, the EUI value for the first floor will be 16.35, for the second - 15.41, which will classify this building as a building that tends to be inefficient. At the end of the work, it is necessary to determine the potential for saving energy, the model of its use (perhaps this building</p> | <p>We have added analysis and determined the potential for saving energy based on different scenarios. We have used some variables for modeling the energy analysis.</p> |

| | | |
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| | is not suitable for such use), and an energy-efficient design. Indicate what can be done to make the building energy efficient. | |
| 6 | Explain the results obtained in the study, what factors influence them positively or negatively (possibly related to the characteristics of the building (wall material, building age, etc.), the characteristics of the HVAC equipment, climate, etc.), whether it is possible to influence changing these factors. | We have revised and used some factors as seen in Table 2 and Table 3. |
| 7 | The analysis of energy consumption of the building under study in previous periods may require attention - were there any changes in the configuration, equipment of the building, how they could affect its energy efficiency. However, such an analysis can be presented in another study. | We have added analysis and determined the potential for saving energy based on different scenarios. |
| 8 | It would be interesting to compare the results obtained in the study with the results of studies [15] and [16]. | Thank you for the suggestions. WE have revised and have done more analysis using 3M modeling to determine the energy consumptions and energy efficiency. |