

A laboratory scale IoT-based measuring of the solar photovoltaic parameters

Arsyad Cahya Subrata, Tole Sutikno, Sunardi Sunardi, Anggit Pamungkas, Watra Arsadiando, Ahmad Raditya Cahya Baswara

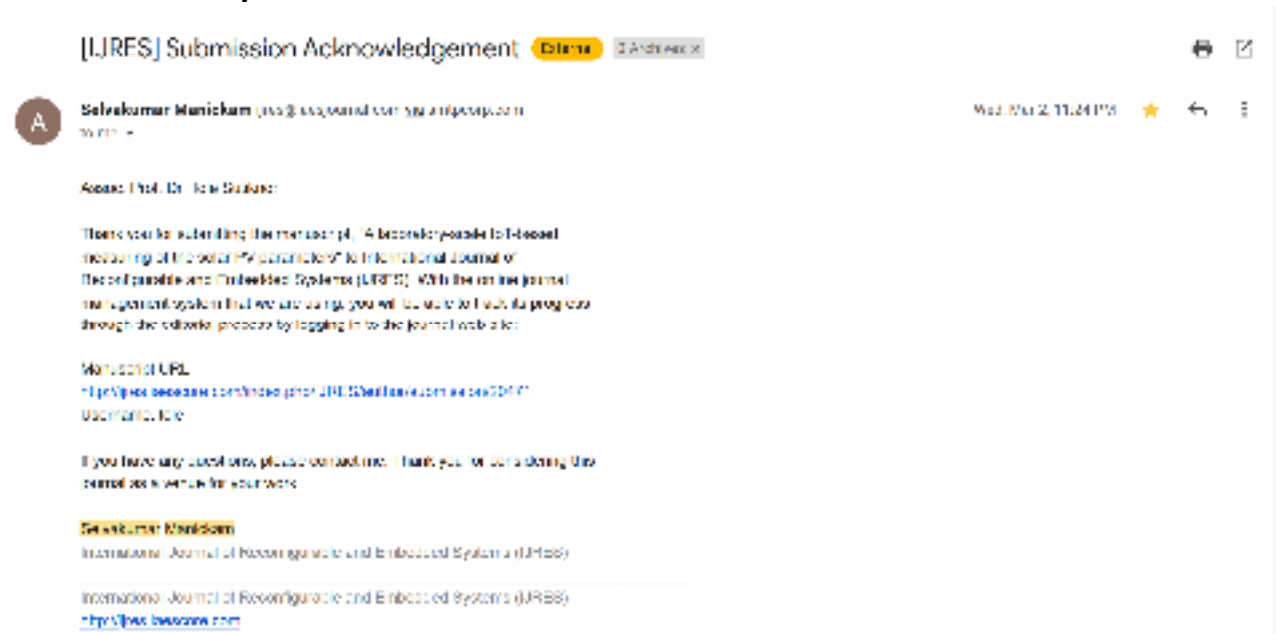
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Bukti Korespondensi Email

Artikel dikirim pada 2 Maret 2022



The screenshot shows an email titled "[IJRES] Submission Acknowledgement" from Balakumar Manickam. The email body contains the following text:

Accept: Prof. Dr. Tole Sutikno


Thank you for submitting the manuscript "A laboratory-scale IoT-based measuring of the solar PV parameters" to International Journal of Reconfigurable and Embedded Systems (IJRES). With the online journal management system that we are using, you will be able to track its progress through the editorial process by logging in to the journal website:

Manuscript URL:
<http://ijres.iaescore.com/index.php/IJRES/view/issue/issue2022/>
User name: tole

If you have any questions, please contact me. Thank you for considering this journal as a venue for your work.

Balakumar Manickam
International Journal of Reconfigurable and Embedded Systems (IJRES)
<http://ijres.iaescore.com>

Keputusan pertama utk revisi pada 4 April 2022



The screenshot shows an email titled "Editor/Author Correspondence" from Mozilla Firefox. The email body contains the following text:

Editor: Subject: [IJRES] Editor Decision: ACCEPT with minor revisions
2022-04-04 07:40 AM

- Paper ID# 20471
- Please strictly use and follow to the template manuscripts (Word Format): <http://iaescore.com/gfa/ijres.docx>
- Number of min references is 25 entries and the similarity score of your final manuscript must be less than 25%
- Please upload the revised paper within 8 weeks

Dear Dr. Tole Sutikno,

We have reached a decision regarding your submission entitled "A laboratory-scale IoT-based measuring of the solar PV parameters" to International Journal of Reconfigurable and Embedded Systems (IJRES), p-ISSN 2089-4864, e-ISSN 2722-2608. The IJRES is an OPEN ACCESS and RILK-RLVJLWLD journal distributed under the terms and conditions of the Creative Commons Attribution-ShareAlike 4.0 International License. This journal is just ACCEPTED for Inclusion (Indexing) in Scopus (see: <http://ijres.iaescore.com/index.php/IJRES/enouncement>).

Our decision is to ACCEPT with minor revisions. Method section is a crucial part of an article. Therefore, it should be presented sufficient clear and complete in every detail facilitating reproducibility by other scientists. You are asked to submit a revised full manuscript, according to the comment from reviewers. The Editor will check whether the revision already address the reviewers' comments. Failing to do proper revision may lead to the rejection of your paper.

Please strictly use and adhere to the template Manuscripts (Word Format): <https://iaescore.com/gfa/ijres.docx> (or LaTeX: <https://iaescore.com/gfa/ijres.rnt>).

Authors are suggested to present their articles with IMRAD sections structure (outline): 1. Introduction - 2. The Proposed Method/Algorithm/Procedure specifically designed (optional) - 3. Method - 4. Results and Discussion - 5. Conclusion. Authors may present complex proofs of theorems or non-obvious proofs of correctness or algorithms after Introduction section (obvious theorems & straightforward proofs of existing theorems are NOT needed).

Please submit your revised paper within 6 weeks.

I was forward for hearing from you

Thank you

Best Regards,
 Avani, Prof. Dr. Naveen Kumar Mendikam
 Editor in Chief, DRES
 nm@journals.wisc.edu

Reviewer A:

Does the title of the paper accurately reflect the major focus/contribution of this paper?
 Yes

Is the abstract a clear description of the paper?
 Yes

Is the paper well written (clear, concise, and well organized)?
 Yes

Is the paper technically sound?
 Yes

The grade of the contribution of the paper to the field?
 Average

Comments to the Authors:

Reviewer's comments and suggestions to improve the paper. (If it is not possible, kindly please use separate sheets or a copy of the paper for comments and suggestions for revision. Indicate whether revisions are mandatory or suggested. Please use word processing type format if possible, and then upload from the online system or submit via email to nm@journals.wisc.edu)

The state of the art is good, and the general structure of the paper and writing quality are also acceptable.

After carefully reviewing your manuscript I have some issues I would like to discuss with you.

1. The contribution strength is in my opinion is below average, and I present my explanation further down my comment.
2. First I noticed that you say you used a DHT22 sensor; but along the paper you talk about the DHT11??, they are very different in terms of sensitivity, so which one did you use?
3. The grammar and English quality are good, but I'm not a native English speaker.
4. Figures and tables are correctly identified and mentioned in the text.
5. I believe your work shows a general sensor data collection to monitor some variables related to the efficiency of a solar PV, however, I would like to see in your manuscript, which is the applications of your work, what is the point in collecting all this data if there isn't a clear goal?
6. My main issue is to detect any novelty in this work, from what I can understand, the authors just put together multiple sensors and sent data to a web platform (that is also not new) to visualize the collected data.

I recommend that you investigate some existing papers relating to energy load management systems that use solar and grid power together to optimize consumption and ultimately save energy to the consumer.

Reviewer B:

Does the title of the paper accurately reflect the major focus/contribution of this paper?
 No

Is the abstract a clear description of the paper?
 No

Is the paper well written (clear, concise, and well organized)?
 No

Is the paper technically sound?
 No

The grade of the contribution of the paper to the field?
 No

Comments to the Authors:

Reviewer's comments and suggestions to improve the paper. (If it is not possible, kindly please use separate sheets or a copy of the paper for comments and suggestions for revision. Indicate whether revisions are mandatory or suggested. Please use word processing type format if possible, and then upload from the online system or submit via email to nm@journals.wisc.edu)

- Abstract is not a clear and which just makes the title seems to write a mess, such as you enter a paper as you are not clear about the title of the paper [1] or you use the wrong title of the paper.
- Introduction is not clear and not clear about the main contribution.
- The work is not really a novelty in terms of the work you are doing.
- Several misspelling and grammar errors are present in the paper.
- The overall quality of the work is not good.

Reviewer C:

Does the title of the paper accurately reflect the major focus/contribution of this paper?
Yes

Is the abstract a clear description of the paper?
Yes

Is the paper well written (clear, concise, and well organized)?
Yes

Is the paper technically sound?
Yes

The grade of the contribution of the paper to the field?
Good


Comments to the Authors:

Reviewer's comments and suggestions to improve the paper. (If it is not possible, kindly please use separate sheets or a copy of the paper for comments and suggestions for revision. Indicate whether revisions are mandatory or suggested. Please use word processing type format if possible, and then upload from the online system or submit via email to ijres@iaesjournal.com):

This paper presents a design for measuring solar PV parameters monitored on a laboratory scale. The paper is well written, however, there are some typo errors hence need to be proofread. Kindly follow the journal format and citation style. The additional comments can be seen in attached file.

Kirim revisi: 8 April 2022

Tola Sudhina (ijres@iaesjournal.com)

08 April 2022, 10:00 AM   

-- (20/07)

-- Title: A Laboratory Scale Based Measuring of the solar PV parameters

To: [International Journal of Renewable and Sustainable Systems \(IJRSS\) Editor](#)

Re: [Decision to Review](#)

Dear Editor and IJRSS Admins,

Thank you for allowing me a submission of my manuscript, with a opportunity to address the [reviewer's](#) comments.

Thank for comments and suggestions for improving my paper.

We are updating

[1] our paper to point [responses](#) to the comments (below) [response to reviewers](#),

[2] to upload our paper with the right image resolution, sizes, etc.

[3] a clean updated manuscript with the right page size document.

We are looking forward to hearing from you soon.

Best regards,

we waiting, etc!

Reviewed1, Concern#1:

Author response: First I realized that you may you used a 10175, rather, but since the paper you talk about the 1011107, they are very different in terms of capability, so what is your did you use?

Author action: Thank for Reviewer's comments, for our clarification. The comparison to make on the online program was used MITL. We have never included before in my paper as for some authors may.

Reviewed1, Concern#2:

Author response: The paper used English quite is very good, but I'm not a native English speaker.

Author action: Thank for your comment.

Reviewed1, Concern#3:

Author response: Names are in Indonesian and mentioned in the text.

Author action: Thank for your comment.

Reviewer1, Concern #4:

Author response: I believe your work shows a general sensor data collection to measure some variables related to the efficiency of a solar PV, however, I would like to see in your manuscript, which is the application of your work, what is the point in collecting all this data if there isn't a clear goal?

Author action: Thank for your comment. The system that we developed aims to use the data that has been obtained as a basis for measurement. The sensors installed include the PV parameter sensor employed in a PV system during the daily cycle and influenced by weather factors. Furthermore, the system we developed can also be used to measure the potential for electricity generation from a solar water connection.

In the paper (in Introduction, in our paragraph 3 to the end of the paragraph), we add an explanatory sentence as follows: "The data stored on the database then can be processed for further identification for 24 hours. Then, these data can be used as a basis for measurement to measure the characteristics of the PV employed in a PV system during the daily cycle and influenced by weather factors. Furthermore, the proposed system can measure the potential for generating electricity from the solar system."

Reviewer1, Concern #5:

Author response: My main reason to clarify is mostly in the work, when what I can understand, the authors just put up normal multiple screen and can also to a web platform (this is also not new to viewing the collected data).

Author action: Thank for your comment. This paper presents a feasible PV parameter measurement using the IoT platform. The contribution of our work is to produce PV parameter data that has been measured for further study on the correlation between weather changes, especially radiation and temperature, to the energy produced.

Reviewer1, Concern #6:

Author response: I am convinced that your research is some existing papers focusing on energy load management systems that use radio and grid power together to optimize consumption and ultimately use energy to the maximum.

Author action: Thank for your suggestion. We will carry out this item in future research. We also add to the end of (Introduction) to the end of the paragraph: "Another application that will be developed is the management of energy loads from solar PV systems and grid power to optimize consumption to save energy for customers. This management system monitors the energy generated by PV due to changing weather."

Reviewer2, Concern #1:

Author response: Abstract of paper is good and which summarizes about the energy management system such as solar energy forecasting and the non-linear nature of photovoltaic (PV) concerning the surrounding environment.

Author action: Thank for Reviewer2's comments.

Reviewer2, Concern #2:

Author response: Introduction of paper is good and nicely given outline for the research.

Author action: Thank for your comment.

Reviewer2, Concern #3:

Author response: Pictures are minimal mostly and quality of pictures is good and figure captions are good.

Author action: Thank for your comment.

Reviewer2, Concern #4:

Author response: Overall methodology and arrangement is good. All the variables are properly mentioned.

Author action: Thank for your comment.

Reviewer2, Concern #5:

Author response: Overall novelty of the paper is good and acceptable.

Author action: Thank for your comment.

Reviewer3, Concern #1:

Author response: Only correct the sentence. The discussion is more than?

(However, the discussion is better if the discussion is more than 12 lines.)

Author action: Thank for Reviewer3's comment. We have corrected the sentence to "However, the discussion is better if the discussion is more than 12 lines if their discussion is more than 12 lines."

Reviewer3, Concern #2:

Author response: Only give the detail of law.

Reviewer3, Concern #2:

Author response: Kirchoff's Kirchhoff's law

The cell output current (I_{cell}) can be calculated by (2) via Kirchoff's law.

Author action: Thank for your comment. Kirchoff's law is a commonly used fundamental law. Authors could not find primary or early sources of Kirchoff's law for citation.

Reviewer3, Concern #3:

Author response: Figure 2 contains different terms (abbreviations), few of them are defined in the text, kindly include description of all terms for better understanding of readers.

Author action: Thank for your suggestion. We have summarized Figure 2 into one equivalent circuit to avoid misunderstanding by the reader.

Reviewer3, Concern #4:

Author response: Method.

In the method section many definitions and some equations are provided without any citations. If the equations are taken from some scientific sources kindly cite them properly. Furthermore definitions and some components used for experiment should be cited so that if someone wants to read further about these terms can easily find additional material.

Author action: Thank for your suggestion. We add citations to the voltage divider circuit equation (3) with reference [17].

Reviewer3, Concern #5:

Author response: Conclusion.

The conclusion is very short kindly extend it with conclusions, usually cover the time sentence, method, and results sentence so kindly extend.

Author action: thank for your suggestion. We add a sentence to the conclusion, including an introduction, method, and results sentence. We also add a statement of the needs to be carried out. The Conclusion is as follows: "This research carried out consumer measurements of IoT-based PV systems on a laboratory scale. The IoT system utilize the Thingpeak platform, easily accessible for general purposes and real-time analysis. The system developed includes NodeMCU embedded as a microcontroller, ACS712 IC for measuring current and INA219 for PV output voltage, photodiode for measuring irradiance hitting PV panel, and DHT11 for measuring ambient temperature. This system is equipped with ADS1115 as an ADC 16-bit mode. Other supporting components are a 30Wp solar panel, 12V battery, PWM SCC as a charging controller, and an inverter. Overall, the developed system successfully measures the parameters of the PV system in various weather conditions for 18 hours and condenses to the data slower both online and offline correctly. This research can be used as a learning model for lab-scale PV systems in the future. In order application that will be developed is the management of energy loads from solar PV systems and grid power to optimize consumption to save energy for consumers. This management system monitors the energy generated by PV and changing weather."

3 Attachments



Keputusan ACCEPTED dan permintaan menyiapkan final paper: 8 April 2022

[IJRES] Editor Decision: ACCEPTED – a Scopus indexed journal Journal Issue 8

Selvakumar Manickam (14034424)@iijres.com (iijres@iijres.com) Thu, 8 Apr 2022, 9:57 AM ★ 📧

– **Issue 04 2022**
 – **Please submit your final paper within 6 weeks!**

Dear Dr. Kirchoffs,

It is my great pleasure to inform you that your paper entitled "A laboratory-scale IoT-based measuring of the solar PV parameters in AC220 PHEU" and will be published on the International Journal of Electrical and Embedded Systems (IJRES) is peer-reviewed and open access journal distributed under the terms and conditions of the Creative Commons Attribution-ShareAlike 4.0 International License and indexed by Scopus (see <http://www.scopus.com/abstract/peer-review/assessment>). Congratulations!

Please submit your final paper along with your self-reply request within 6 weeks to email: iijres@iijresjournal.com. Your final paper must STRICTLY adhere to the guide of authors (<http://www.iijres.com/pdfs/iijresguide>) and the checklist at <http://www.iijres.com/pdfs/iijreschecklist>. The similarity rate should be checked by using software such as iThenticate.

checker at <http://www.iQ1s5y> or <http://www.iQ1s5y.com/q1/res/docs>). The similarity rate should be checked by using software such as iThenticate or Turnitin (that the result is less than 25%). If the similarity index is more than 25%, your paper will be rescheduled for publication until the similarity is less than 25%.

Your cooperation is very appreciated.

Thank you

Best Regards,
Assoc. Prof. Dr. Selvakumar Manickam
Editor-in-Chief, IJRES
ijres@iaesjournal.com

This Journal was ACCEPTED for inclusion (Indexing) in Scopus (see: <http://suggestor.stop-scopus.com/progress/tracking?trackingID=D3714FBAA3A69A16>), and the published articles since 2021 issues have been indexed by Scopus. You can search this journal in the scopus dot com by menu "search", choose "source title", type "International Journal of Reconfigurable and Embedded Systems" and click search button. You cannot yet directly search through
