

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

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International Journal of Reconfigurable and Embedded Systems, ISSN 2089-4864


Vol 11, No 2 July 2022, pp. 135-145

<http://doi.org/10.11591/ijres.v11.i2.pp135-145>

Bukti Korespondensi Email

Artikel dikirim pada 2 Maret 2022

[IJRES] Submission Acknowledgement External 0 Archives x

 **Selvakumar Manickam** ijres@iaesjournal.com via smtpcorp.com to me Wed, Mar 2, 11:24 PM ★ ↶ ⋮

Assoc. 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 web site:

Manuscript URL:
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Username: tole

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

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

Keputusan pertama utk revisi pada 4 April 2022

Editor/Author Correspondence — Mozilla Firefox

<https://ijres.iaescore.com/index.php/IJRES/editor/viewEditorDecisionComments/20471#12558>

Editor/Author Correspondence

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 PEER-REVIEWED 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/announcement>).

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 reproducible by other scientists.
You are asked to submit a revised full manuscript, according to the comment from reviewers. The Editors 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.rar>).
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 of algorithms after introduction section (obvious theorems & straightforward proofs of existing theorems are NOT needed).

Please submit your revised paper within 6 weeks.

I look forward for hearing from you

Thank you

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

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 ijres@iaesjournal.com)
:

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. Pictures 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?:
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):

- Abstract of paper is good and which summarizes about the energy renewable source such as solar energy harvesting and the nonlinear nature of photovoltaic (PV) concerning the surrounding environment.
- Introduction of paper is good and nicely given citations for each sentence.
- Pictures are inserted neatly and quality of pictures is good and figure captions are good.
- Overall methodology and summarization is good. All the equations are properly inserted.
- Overall novelty of the paper is good and acceptable.

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



Tole Sutikno <tole@ee.uad.ac.id>
to Selvakumar, Tole ▾

Fri, Apr 8, 10:30 AM ☆ ↶ ⋮

-- ID# 20471

-- Title: "A laboratory-scale IoT-based measuring of the solar PV parameters"

To: International Journal of Reconfigurable and Embedded Systems (IJRES) Editor

Re: Response to reviewers

Dear Assoc. Prof. Dr. Selvakumar Manickam,

Thank you for allowing a re-submission of our manuscript, with an opportunity to address the reviewers' comments.

Thank for comments and suggestions for improving our paper.

We are uploading:

- (a) our point-by-point response to the comments (below) (response to reviewers),
- (b) an updated manuscript with yellow highlighting indicating changes, and
- (c) a clean updated manuscript without highlights (PDF main document).

We are looking forward to hearing from you soon

Best regards,

Tole Sutikno, *et al.*

Reviewer#1, Concern # 1:

Author response: 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?

Author action: Thank for Reviewer#1's comments. It's our clarification. The component to measure the ambient temperature we use is DHT11. We have never included DHT22 in the paper, as far as the authors know.

Reviewer#1, Concern # 2:

Author response: The grammar and English quality are good, but I'm not a native English speaker.

Author action: Thank for your comment.

Reviewer#1, Concern # 3:

Author response: Pictures and tables are correctly identified and mentioned in the text.

Author action: Thank for your comment.

Reviewer#1, Concern # 4:

Author response: 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?

Author action: Thank for your comment. The system that we developed aims to use the data that has been obtained as a lesson for researchers. The lessons learned include the PV characteristics 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 system somewhere.

In the paper (Introduction -> 5th paragraph -> the end of the paragraph), we add an explanatory sentence as follows "The data stored on the webserver then can be processed for further identification for 24 hours. Then, these data can be used as a lesson for researchers to determine 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."

Reviewer#1, Concern # 5:

Author response: 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.

Author action: Thank for your comment. This paper presents a lab-scale 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 of the correlation between weather changes, especially irradiance and temperature, to the energy produced.

Reviewer#1, Concern # 6:

Author response: 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.

Author action: Thank for your suggestion. We will carry out this theme in future research. We also add to the section (Conclusion -> 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 consumers. This management system monitors the energy generated by PV due to changing weather."

Reviewer#2, Concern # 1:

Author response: Abstract of paper is good and which summarizes about the energy renewable source such as solar energy harvesting and the nonlinear nature of photovoltaic (PV) concerning the surrounding environment.

Author action: Thank for Reviewer#2's comments.

Reviewer#2, Concern # 2:

Author response: Introduction of paper is good and nicely given citations for each sentence.

Author action: Thank for your comment.

Reviewer#2, Concern # 3:

Author response: Pictures are inserted neatly and quality of pictures is good and figure captions are good.

Author action: Thank for your comment.

Reviewer#2, Concern # 4:

Author response: Overall methodology and summarization is good. All the equations are properly inserted.

Author action: Thank for your comment.

Reviewer#2, Concern # 5:

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

Author action: Thank for your comment.

Reviewer#3, Concern # 1:

Author response: Kindly correct the sentence. The distance is more than?

(However, the data cannot be sent if the distance more than 10 meters.)

Author action: Thank for Reviewer#3's comment. We have corrected the sentence to "However, the minicomputer cannot receive data sent via Bluetooth if their distance is more than 10 meters."

Reviewer#3, Concern # 2:

Author response: Kindly cite Kirchhoff's law.

Reviewer#3, Concern # 2:

Author response: Kindly cite Kirchhoff's law.

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

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

Reviewer#3, 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.

Reviewer#3, 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 external sources kindly cite them properly. Further the 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 [33].

Reviewer#3, Concern # 5:

Author response: Conclusion:

The conclusion is very short kindly extend it a bit, conclusion usually contains intro 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 research to be carried out. The Conclusion is as follows: "This research carried out parameter measurements of IoT-based PV systems on a laboratory scale. The IoT system utilizes the ThingSpeak platform, easily accessible for general purposes and real-time analysis. The system developed includes NodeMCU ESP8266 as a microcontroller, ACS712 5A for measuring current and INA219 for PV output voltage, photodiode for measuring irradiance hitting PV panels, and DHT11 for measuring ambient temperature. This system is equipped with ADS1115 as an ADC 16bit reader. Other supporting components are a 50 Wp solar panel, 12 V 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 sends them to the data viewer both online and offline correctly. This research can be used as a learning model for lab-scale PV systems in the future. 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 consumers. This management system monitors the energy generated by PV due to changing weather."

3 Attachments



Keputusan ACCEPTED dan permintaan menyiapkan final paper: 8 April 2022

[IJRES] Editor Decision: ACCEPTED - a Scopus indexed journal

External Inbox x



Selvakumar Manickam ijres@iaesjournal.com via smtpcorp.com
to me, Arsyad, Sunardi, Anggit, Watra, Ahmad, Tole ▾

Thu, May 12, 9:57 AM



- Paper ID# 20471
- Please submit your final paper within 6 weeks!

Dear Dr. Tole Sutikno,

It is my great pleasure to inform you that your paper entitled "A laboratory-scale IoT-based measuring of the solar PV parameters" is ACCEPTED and will be published on the International Journal of Reconfigurable and Embedded Systems (IJRES), a 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://ijres.iaescore.com/index.php/IJRES/announcement>). Congratulations!

Please submit your final paper along with your similarity report within 6 weeks to email: IJRES@IAESJOURNAL.COM. Your final paper must STRICTLY adhere to the guide of authors (<http://iaescore.com/gfa/ijres.docx>) and the checklist at <https://s.id/c1sSy> or <http://iaescore.com/gfa/ijres.docx>. The similarity rate should be checked by using software such as iThenticate or

checklist at <https://s.id/c1sSy> or <http://iaescore.com/gfa/ijres.docx>). 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@jaesjournal.com

This journal was ACCEPTED for inclusion (indexing) in Scopus (see: <https://suggestor.step.scopus.com/progressTracker/?trackingID=D3714F8AA3A69A16>), 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
