



Alex Wenda <alexwenda@uin-suska.ac.id>

[ASTECHNOVA 2021] Information about paper #1570723696 (Solar Irrigation System in Indonesia: Practical Assessment and Evaluation for Converting Fossil Fuels With Solar Energy) has been changed

3 messages

astechnova@ugm.ac.id <astechnova@ugm.ac.id@edas.info>

Sat, May 1, 2021 at 9:01 AM

Reply-To: astechnova@ugm.ac.id

To: Kunaifi Kunaifi <kunaifi@uin-suska.ac.id>, Alex Wenda <alexwenda@uin-suska.ac.id>

Dear Dr. Kunaifi Kunaifi:

Information about your paper #1570723696 ('Solar Irrigation System in Indonesia: Practical Assessment and Evaluation for Converting Fossil Fuels With Solar Energy') for ASTECHNOVA 2021 was changed by Kunaifi Kunaifi ():

Alex Wenda added as author

No further action is required from you.

If you have already submitted your manuscript, you can change it at any time before the deadline by [web form upload](#).You can [see all your submissions](#), using the EDAS user name . From there, you can see the current status of the papers, whether a manuscript has been submitted and can edit the paper information.You can directly view information about your [paper](#).

Once you update your manuscript, you will receive another email confirmation.

Regards, Astechnova 2021 TPC Chair

astechnova@ugm.ac.id <astechnova@ugm.ac.id@edas.info>

Sat, May 1, 2021 at 9:02 AM

Reply-To: astechnova@ugm.ac.id

To: Kunaifi Kunaifi <kunaifi@uin-suska.ac.id>, Alex Wenda <alexwenda@uin-suska.ac.id>, Zulfatri Aini <zulfatri_aini@uin-suska.ac.id>

Dear Dr. Kunaifi Kunaifi:

Information about your paper #1570723696 ('Solar Irrigation System in Indonesia: Practical Assessment and Evaluation for Converting Fossil Fuels With Solar Energy') for ASTECHNOVA 2021 was changed by Kunaifi Kunaifi ():

Zulfatri Aini added as author

[Quoted text hidden]

astechnova@ugm.ac.id <astechnova@ugm.ac.id@edas.info>

Sat, May 1, 2021 at 9:02 AM

Reply-To: astechnova@ugm.ac.id

To: Kunaifi Kunaifi <kunaifi@uin-suska.ac.id>, Alex Wenda <alexwenda@uin-suska.ac.id>, Zulfatri Aini <zulfatri_aini@uin-suska.ac.id>, Ewi Ismaredah <ewi.ismaredah@uin-suska.ac.id>

Dear Dr. Kunaifi Kunaifi:

Information about your paper #1570723696 ('Solar Irrigation System in Indonesia: Practical Assessment and Evaluation for Converting Fossil Fuels With Solar Energy') for ASTECHNOVA 2021 was changed by Kunaifi Kunaifi ():

Ewi Ismaredah added as author

[Quoted text hidden]



Alex Wenda <alexwenda@uin-suska.ac.id>

[ASTECHNOVA 2021] #1570723696 has been uploaded

1 message

astechnova@ugm.ac.id <astechnova=ugm.ac.id@edas.info>

Sat, May 1, 2021 at 9:04 AM

Reply-To: astechnova@ugm.ac.id

To: Kunaifi Kunaifi <kunaifi@uin-suska.ac.id>, Alex Wenda <alexwenda@uin-suska.ac.id>, Zulfatri Aini <zulfatri_aini@uin-suska.ac.id>, Ewi Ismaredah <ewi.ismaredah@uin-suska.ac.id>

Dear Dr. Kunaifi Kunaifi:

Thank you for uploading your paper 1570723696 (*Solar Irrigation System in Indonesia: Practical Assessment and Evaluation for Converting Fossil Fuels With Solar Energy*) to **ASTECHNOVA 2021 - International Energy Conference**. The paper is of type application/vnd.openxmlformats-officedocument.wordprocessingml.document and has a length of 350687 bytes.

You can modify your paper at <https://edas.info/showPaper.php?m=1570723696> and see all your submissions at <https://edas.info/index.php?c=28264> using the EDAS identifier kunaifi@uin-suska.ac.id

Regards,
Astechnova 2021 TPC Chair



Alex Wenda <alexwenda@uin-suska.ac.id>

[ASTECHNOVA 2021] #1570723696 has been uploaded

2 messages

astechnova@ugm.ac.id <astechnova=ugm.ac.id@edas.info>

Tue, Jun 29, 2021 at 9:05 PM

Reply-To: astechnova@ugm.ac.id

To: Kunaifi Kunaifi <kunaifi@uin-suska.ac.id>, Alex Wenda <alexwenda@uin-suska.ac.id>, Zulfatri Aini <zulfatri_aini@uin-suska.ac.id>, Ewi Ismaredah <ewi.ismaredah@uin-suska.ac.id>

Cc: epic@ugm.ac.id, Ayodya Pradhipta Tenggara <ayodya.pradhipta@gmail.com>

Dear Dr. Kunaifi Kunaifi:

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Regards,
Astechnova 2021 TPC Chair

astechnova@ugm.ac.id <astechnova=ugm.ac.id@edas.info>

Tue, Jun 29, 2021 at 9:35 PM

Reply-To: astechnova@ugm.ac.id

To: Kunaifi Kunaifi <kunaifi@uin-suska.ac.id>, Alex Wenda <alexwenda@uin-suska.ac.id>, Zulfatri Aini <zulfatri_aini@uin-suska.ac.id>, Ewi Ismaredah <ewi.ismaredah@uin-suska.ac.id>

Cc: epic@ugm.ac.id, Ayodya Pradhipta Tenggara <ayodya.pradhipta@gmail.com>

Dear Dr. Kunaifi Kunaifi:

Thank you for uploading your paper 1570723696 (*Solar Irrigation System in Indonesia: Practical Assessment and Evaluation for Converting Fossil Fuels With Solar Energy*) to **ASTECHNOVA 2021 - International Energy Conference**. The paper is of type application/msword and has a length of 1300992 bytes.

[Quoted text hidden]



Alex Wenda <alexwenda@uin-suska.ac.id>

[ASTECHNOVA 2021] Information about paper #1570723696 (Solar Irrigation System in Indonesia: Practical Assessment and Evaluation for Converting Fossil Fuels With Solar Energy) has been changed

1 message

astechnova@ugm.ac.id <astechnova@ugm.ac.id@edas.info>

Mon, May 3, 2021 at 4:49 PM

Reply-To: astechnova@ugm.ac.id

To: Kunaifi Kunaifi <kunaifi@uin-suska.ac.id>

Cc: Alex Wenda <alexwenda@uin-suska.ac.id>, Zulfatri Aini <zulfatri_aini@uin-suska.ac.id>, Ewi Ismaredah <ewi.ismaredah@uin-suska.ac.id>

Dear Dr. Kunaifi Kunaifi:

Information about your paper #1570723696 ('Solar Irrigation System in Indonesia: Practical Assessment and Evaluation for Converting Fossil Fuels With Solar Energy') for ASTECHNOVA 2021 was changed by Kunaifi Kunaifi ():

Abstract: 1. **BACKGROUND** This paper is aimed at designing and evaluating a solar irrigation system based on the actual situation in Krandegan Village, Indonesia. Solar irrigation is proposed as a feasible and sustainable alternative to the existing fossil fuels-powered pumps for watering a paddy farm (1), including in Krandegan.

2. **PROBLEM STATEMENT** Krandegan Village has 70 hectares of paddy farms. To ensure three harvests a year, farmers pump water from nearby rivers and a borehole using eight diesel and gasoline pumps and deliver it to the farm. Without these pumps, rainfall would be the only source of water giving only one harvest a year. The power of the pumps ranges from 2 horsepower (hp) to 26 hp, all run 24 hours a day, 7 days a week. The cost consequence is clear. Almost Rp. 200 million has been spent annually during the past years, provided by donors. But, soon financial support will stop, risking the pumps to be abandoned as has been the case in nearby villages for many years now. Besides the cost, the fuel scarcity is real. Also, diesel engines cause pollution from their noises; air pollution (CO₂, CO, and particulate matter); and land pollution from the oil spill (2). Thus, innovation is needed for Krandegan. In this paper, a solar irrigation system is proposed as an affordable, reliable, silent, and clean solution to the problem (3). During sun hours, PV panels will supply power to multiple pumps that would supply a sufficient amount of water to the farm (1).

3. **METHODOLOGY** The method of this study can be briefly explained in three major steps below. Implementation of the method follows Covid-19 protocols. First, a focus group discussion (FGD) with the farmers and the village officials to identify issues, collect the design data, and capture the preference of the end-users. Second, solar irrigation system design based on the steps below: (a) Calculate the daily water needs for each block on the farm using CROPWAT, an application developed by the Food and Agriculture Organization (FAO) (4). (b) Pump selection and sizing based on the daily water requirement and total head. (c) PV array sizing using data on solar irradiation and pump requirement (energy demand, wattage, and voltage) (5). (d) Balance of system (BOS) design that involves determining the size of the inverter (if an AC pump has been selected), size of the controller, and protection equipment. Third, economic analysis of the system using Retscreen (6) considering variables that include capital cost, operational and maintenance cost for 25 years, the net presents cost and the payback period. The economics of the existing pumping system will be compared with the proposed solar irrigation system.

4. **RESULT AND DISCUSSION** At the time of writing this abstract, the research is still undergoing. The following results are temporary but can provide a general overview of the expected results to be presented in the final paper. Given the available water supply, the solar irrigation system for Krandegan will be split into six subsystems, each with different sizes. Five subsystems will draw water from nearby rivers and one subsystem will draw water from a borehole. Figure 1 shows the configuration of a pump system. The total water demand is 7000 m³/day to be supplied by ten DC pumps of different sizes. The PV array will be placed near the water sources. The total size of the PV array is 90 kWp. The total cost (rough estimation) is Rp. 1.2 billion.

5. **CONCLUSIONS** The solar irrigation system for paddy farms in Krandegan would be able to meet the daily water demand, using June, the least irradiance month, as the design month. The lowest and highest water to be delivered by the pumps are respectively 5,725 m³/day in June and 6,150 m³/day in October. These represent 82% to 88% of the daily water demand. To fill the gap of water need, a small diesel pump could be run, depending on the necessity.

No further action is required from you.

If you have already submitted your manuscript, you can change it at any time before the deadline by [web form upload](#).

You can [see all your submissions](#), using the EDAS user name kunaifi@uin-suska.ac.id. From there, you can see the current status of the papers, whether a manuscript has been submitted and can edit the paper information.

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Regards, Astechnova 2021 TPC Chair



Alex Wenda <alexwenda@uin-suska.ac.id>

[ASTECHNOVA 2021] Information about paper #1570723696 (Solar Irrigation System in Indonesia: Practical Assessment and Evaluation for Converting Fossil Fuels With Solar Energy) has been changed

1 message

astechnova@ugm.ac.id <astechnova@ugm.ac.id@edas.info>

Tue, May 4, 2021 at 10:14 AM

Reply-To: astechnova@ugm.ac.id

To: Kunaifi Kunaifi <kunaifi@uin-suska.ac.id>

Cc: Alex Wenda <alexwenda@uin-suska.ac.id>, Zulfatri Aini <zulfatri_aini@uin-suska.ac.id>, Ewi Ismaredah <ewi.ismaredah@uin-suska.ac.id>, epic@ugm.ac.id, ayodya.pradhipta@gmail.com

Dear Dr. Kunaifi Kunaifi:

Information about your paper #1570723696 ('Solar Irrigation System in Indonesia: Practical Assessment and Evaluation for Converting Fossil Fuels With Solar Energy') for ASTECHNOVA 2021 was changed by Kunaifi Kunaifi ():

Abstract: In this paper, solar irrigation is proposed as a feasible and sustainable replacement to the existing fossil fuels-powered pumps for watering a paddy farm in Krandegan, Purworejo. Almost Rp. 200 million has been spent annually during the past years for fuels, which is a huge financial burden for the farmers. The methodological approach used in this study include; conducting focus group discussions (FGDs) with the farmers, calculating the daily water needs of the farm using CROPWAT, selecting the suitable pumps, sizing PV array, sizing balance of system (BOS), and analyzing the economics of the system using Retscreen. The preliminary results show that the total water demand in Krandegan is 7000 m³/day to be supplied by ten surface DC pumps of different sizes. The total size of the PV array is 90 kWp. The total cost (rough estimation) is Rp. 1.2 billion. With this approach, the solar irrigation system for paddy farms in Krandegan would be able to supply 82% to 88% of the daily water demand depending on the season. To fill the gap of water need, a small diesel pump could be run, depending on the necessity. The full result will be presented in the final paper.

No further action is required from you.

If you have already submitted your manuscript, you can change it at any time before the deadline by [web form upload](#).

You can [see all your submissions](#), using the EDAS user name kunaifi@uin-suska.ac.id. From there, you can see the current status of the papers, whether a manuscript has been submitted and can edit the paper information.

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Regards, Astechnova 2021 TPC Chair



Alex Wenda <alexwenda@uin-suska.ac.id>

[ASTECHNOVA 2021] Please write ABSTRACT on EDAS. #1570723696 ('Solar Irrigation System in Indonesia: Practical Assessment and Evaluation for Converting Fossil Fuels With Solar Energy')

1 message

astechnova@ugm.ac.id <astechnova@ugm.ac.id>

Mon, May 3, 2021 at 3:07 PM

Reply-To: astechnova@ugm.ac.id

To: Kunaifi Kunaifi <kunaifi@uin-suska.ac.id>, Alex Wenda <alexwenda@uin-suska.ac.id>, Zulfatri Aini <zulfatri_aini@uin-suska.ac.id>, Ewi Ismaredah <ewi.ismaredah@uin-suska.ac.id>

Cc: ayodya.pradhipta@gmail.com

Dear authors,

Please write "an abstract" in EDAS information instead of "extended abstract". Thank you for your understanding and support. If you have further questions or requests, feel free to contact us.

Best Regards,

Astechnova 2021 Publication Chair

Ayodya Pradhipta Tenggara

Phone/Whatsapp contact: +62-813-8906-1609

Mail: ayodya.pradhipta@gmail.com



Alex Wenda <alexwenda@uin-suska.ac.id>

[ASTECHNOVA 2021] Reminder of Full Paper Submission Deadline and Early Bird Registration

1 message

astechnova@ugm.ac.id <astechnova@ugm.ac.id>

Fri, Jun 11, 2021 at 6:02 PM

To: kunaifi@uin-suska.ac.id, alexwenda@uin-suska.ac.id, zulfatri_aini@uin-suska.ac.id, ewi.ismaredah@uin-suska.ac.id

Dear Mr/Mrs/Ms Kunaifi Kunaifi :

Through this email, we would remind you to upload your full paper for your submission #1570723696 ('Solar Irrigation System in Indonesia: Practical Assessment and Evaluation for Converting Fossil Fuels With Solar Energy') for ASTECHNOVA 2021 on your EDAS system before 30 June 2021 based on reviewer(s) suggestions on your extended abstract submission, as written in the other email. The full paper template can be downloaded in this link: <https://astechnova.ugm.ac.id/downloads/>. However, if you have uploaded your full paper manuscript, you can ignore this message.

We also want to inform you that the early bird registration will end on 15 June 2021. If you want to spend less on the registration fee, do not forget to register through the early bird registration. Please check this link <https://astechnova.ugm.ac.id/registration-guidelines/> to get guidance related to registration and payment. If you have done your registration, please ignore this message.

We appreciate your participation in ASTECHNOVA 2021. If you have further queries, do not hesitate to contact us at astechnova@ugm.ac.id

Yours sincerely,

Astechnova 2021 TPC Chair

**[Astechnova 2021] Reminder - 1570723696 Kunaifi Kunaifi.pdf**

161K



Alex Wenda <alexwenda@uin-suska.ac.id>

[ASTECHNOVA 2021] Your paper #1570723696 has been accepted

1 message

astechnova@ugm.ac.id <astechnova=ugm.ac.id@edas.info>

Sat, May 29, 2021 at 10:23 AM

Reply-To: astechnova@ugm.ac.id

To: Kunaifi Kunaifi <kunaifi@uin-suska.ac.id>, Alex Wenda <alexwenda@uin-suska.ac.id>, Zulfatri Aini <zulfatri_aini@uin-suska.ac.id>, Ewi Ismaredah <ewi.ismaredah@uin-suska.ac.id>

Dear Dr. Kunaifi Kunaifi:

Congratulations - your paper #1570723696 ('Solar Irrigation System in Indonesia: Practical Assessment and Evaluation for Converting Fossil Fuels With Solar Energy') for ASTECHNOVA 2021 has been ACCEPTED and will be PRESENTED in the ASTECHNOVA 2021 - International Energy Conference. More information related to the presentation can be seen in this link:

<https://astechnova.ugm.ac.id/presenter/>. The formal acceptance letter is sent in other email.

Please also check this

link <https://astechnova.ugm.ac.id/registration-guidelines/> to get guidance related to registration and payment, and remember these important dates:

- 30 May - 15 June
2021 : Early Bird Registration
- 16 June - 3 August
2021 : Normal Registration
- 15 August
2021 : Deadline for
PowerPoint Presentation and Pre-Recorded Video Submission

For submission on IOP Conference

Proceeding, please upload your full paper on your EDAS system

<https://edas.info/index.php?c=28264>) **before 30 June**

2021 based on reviewer(s)

suggestions on your extended abstract submission, as written in the end of this email. The full paper template can be downloaded in this link:

<https://astechnova.ugm.ac.id/downloads/>

Your full paper manuscript will be under review

process and editorial check between **1 July 2021** and **5 August 2021** in order to make sure its

suitability with previous reviewers suggestions and the IOP proceeding

format. When the final manuscript is ready, it will be submitted to

proceedings in *IOP Conference Series: Earth and Environmental Science (EES)*. During your full paper manuscript

preparation, please pay attention with IOP Author Guidelines and IOP

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We appreciate your participation in ASTECHNOVA

2021. If you have further queries, do not hesitate to contact us at

astechnova@ugm.ac.id.

Yours
sincerely,

Astechnova 2021 TPC Chair

The reviews are below:

Extended abstract review 1

Relevance with themes: Rate the importance of the topic addressed in the paper within its area of research.

Solid work of notable importance. (4)

Novelty and originality: Rate the novelty and originality of the ideas or results presented in the paper.

Some interesting ideas and results on a subject well investigated. (3)

Clarity: Rate the way of writing in presenting idea to readers with consideration in dictions and language structure.

Good writing. The idea can be understood clearly (3)

Systematics: Rate the way of and conveying idea, management of information/data, and avoid redundancy

The presented idea and data are systematic that can explain data clearly (3)

Analysis techniques and conclusion deduction: Rate the technical content of the paper (e.g.: completeness of the analysis or simulation study, thoroughness of the treatise, accuracy of the models, etc.), its soundness, scientific rigour, and the way to answer problems in conclusion.

Solid work of notable importance. (3)

Recommendation: How do you rate your recommendation?

Accept. (3)

Detailed comments: Please justify your recommendation and suggest improvements in technical content or presentation.

interesting concept to perform analysis of energy source with alternative hybrid system (renewable energy-fossil) at the conclusion. At the end each energy system should supports each other.

Great concept to support economics activities of society with alternative energy system that also could empowers society.

Extended abstract review 2

Relevance with themes: Rate the importance of the topic addressed in the paper within its area of research.

Valid work but limited contribution. (3)

Novelty and originality: Rate the novelty and originality of the ideas or results presented in the paper.

Minor variations on a well investigated subject. (2)

Clarity: Rate the way of writing in presenting idea to readers with consideration in dictions and language structure.

Good writing. The idea can be understood clearly (3)

Systematics: Rate the way of and conveying idea, management of information/data, and avoid redundancy

The presented idea and data are systematic that can explain data clearly (3)

Analysis techniques and conclusion deduction: Rate the technical content of the paper (e.g.: completeness of the analysis or simulation study, thoroughness of the treatise, accuracy of the models, etc.), its soundness, scientific rigour, and the way to answer problems in conclusion.

Solid work of notable importance. (3)

Recommendation: How do you rate your recommendation?

Accept. (3)

Detailed comments: Please justify your recommendation and suggest improvements in technical content or presentation.

The technical content is solid and the presentation is clear.

Extended abstract review 3

Relevance with themes: Rate the importance of the topic addressed in the paper within its area of research.

Solid work of notable importance. (4)

Novelty and originality: Rate the novelty and originality of the ideas or results presented in the paper.

Minor variations on a well investigated subject. (2)

Clarity: Rate the way of writing in presenting idea to readers with consideration in dictions and language structure.

Poor writing. The idea can be understood by careful reading (2)

Systematics: Rate the way of and conveying idea, management of information/data, and avoid redundancy

The presented idea and data are systematic that can explain data clearly (3)

Analysis techniques and conclusion deduction: Rate the technical content of the paper (e.g.: completeness of the analysis or simulation study, thoroughness of the treatise, accuracy of the models, etc.), its soundness, scientific rigour, and the way to answer problems in conclusion.

Solid work of notable importance. (3)

Recommendation: How do you rate your recommendation?

Accept. (3)

Detailed comments: Please justify your recommendation and suggest improvements in technical content or presentation.

The similarity of research conduct with paper number 1570723671 (from the same author) is detected. The title does not represent general aims of research. The title said assessment and evaluation while in research aims it said design and evaluation. The research title should match the research activities involved.

..



Alex Wenda <alexwenda@uin-suska.ac.id>

[ASTECHNOVA 2021] Your paper #1570723696 has been accepted

1 message

astechnova@ugm.ac.id <astechnova@ugm.ac.id>

Sat, May 29, 2021 at 12:05 PM

To: kunaifi@uin-suska.ac.id, alexwenda@uin-suska.ac.id, zulfatri_aini@uin-suska.ac.id, ewi.ismaredah@uin-suska.ac.id

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For submission on IOP Conference Proceeding, please upload your full paper on your EDAS system <https://edas.info/index.php?c=28264> before 30 June 2021 based on reviewer(s) suggestions on your extended abstract submission, as written in other email. The full paper template can be downloaded in this link:

<https://astechnova.ugm.ac.id/downloads/>.

Your full paper manuscript will be under review process and editorial check between 1 July 2021 and 5 August 2021 in order to make sure its suitability with previous reviewers suggestions and the IOP proceeding format. When the final manuscript is ready, it will be submitted to proceedings in IOP Conference Series:Earth and Environmental Science (EES). During your full paper manuscript preparation, please pay attention with IOP Author Guidelines and IOP Proceeding Licence as written in these links below:

<https://publishingsupport.iopscience.iop.org/author-guidelines-for-conference-proceedings/>

<https://publishingsupport.iopscience.iop.org/questions/iop-proceedings-licence/>

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Yours sincerely,

Astechnova 2021 TPC Chair

**Acceptance Letter Astechnova - 1570723696 Kunaifi Kunaifi.pdf**

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