



Yusnita Rahayu <yusnita.rahayu@lecturer.unri.ac.id>

PIER Journals Revision Request: 22110409, reminding again.

3 messages

PIER Editorial and Production OFFICE <noreply@service.jpier.org.cn>

Thu, Dec 29, 2022 at 10:15 AM

Reply-To: work@jpier.org

To: yusnita.rahayu@lecturer.unri.ac.id

Dear Dr. Yusnita Rahayu:

Your article

Key: 22110409

Title: Experimental Based Blood Glucose Monitoring with a Non-invasive Cylindrical Biosensor Antenna
may be accepted for publication when we receive your revised version. However, this is not an acceptance notice, the paper may still be rejected. A final decision of acceptance or rejection will be made after receiving and evaluating your revised version together with additional new review inputs.

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Then find this paper and click "22110409 [View]" to view the details.

You can take into account Reviewers' comments and suggestions, and fill in the revision checklist in the "To Do" list.

To expedite the process, the following files are required in this revision stage:

- 1) The point-by-point answers to the reviewer comments in a separate file.
- 2) A revised version with clear revision marks.
Please kindly mark revisions in different color or indicate the page and line numbers where the revisions should be made. Revision marks will expedite the checking process by the editors or reviewers.
- 3) Please DO upload the source files (TEX with EPS or PDF figures, or DOCX files) of the whole revised article to expedite the typeset process.

Usually, you are required to submit the revised version within 3-7 days. However, we hope you can have reasonable time to improve the manuscript better. If you need more time, we suggest you inform us in advance. Or, if we do not receive your response within 1 month, your paper may be withdrawn from our file.

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Authors are strongly suggested to pay attention to the page limit before submitting and revising the manuscript. Please kindly note that any revision of reducing contents in the next Final Proofread stage will not be acceptable, once you receive the final acceptance notice.

Reviewer 1's Comments:

The authors have designed a a cylindrical antenna design for non-invasive blood glucose monitoring. The cylindrical antenna show a frequency shift that occurs at 7.5 MHz for every mg/dl of blood sugar levels The results are tested by measuring the blood sugar level of 25 volunteers. However

1. There are number of grammatical errors and some sentences need to be rephrased. Please correct all the errors for better understanding.
2. The text in Fig. 1 (b) is not legible.
3. Antenna design equation should be included
- 4.. Frequency scale in Fig. 7 should be 1.4 to 2.0 GHz

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- 3) Table 1 does not provide performance improvement compared to other studies.

Reviewer 3's Comments:

In this paper a cylindrical CPW antenna for non-invasive blood glucose monitoring is presented. The paper is well written and technically correct. But, recent research has not been well reviewed. Some minor points should be addressed before being accepted.

- 1- The abstract should be rewritten. In this section, it is better to state the following: operating frequency, structure size, quality factor, sensitivity, error rate of presented design and the innovation that exists in this design.
- 2- The introduction section is not well-organized. Moreover, the essential knowledge required to carry the reader along is not conveyed. Also, the novelty of the work is missing here. I suggest writing it from scratch. In the introduction section, some articles that have been published in prestigious journals in recent years and their performance are similar to the proposed design presented in this article should be examined more thoroughly.
3. In the introduction section, the authors can investigate planar sensors more widely, for example, they can use the following articles in the modified version.
 10.1109/TIM.2021.3052011
 10.1049/el.2017.2481
 10.1049/iet-wss.2018.5044
 10.1109/JSEN.2020.2998004
 10.1109/JSEN.2021.3124329
4. In the modified version, the authors need to compare the proposed design in this article with similar works in terms of simplicity of the fabrication process, detection sensitivity, amount of quality factor, structure size, investigation of electric field intensity in the sensing area, cheapness, etc., and the results must be given in a table.
5. The parameters and values of the axes are not clear in the figures 4, 6-8. Please increase their fonts.
6. In printed version, color of the curves cannot be recognized in fig. 6.

Reviewer 4's Comments:

Non-invasive glucose monitoring was a hot topic 20 years ago. The related study was carried out by researchers from Massachusetts General Hospital, which finally turned out to be unfeasible. The challenge lies not in equipment design, but in building a large database for precisely quantitative diagnosis. The author proposed an antenna for non-invasive glucose monitoring. The reviewer's concerns are as follows.

1. It might not be appropriate to define the device as an antenna. To name it a sensor might be more appropriate. The radiation patterns are simulated and measured in a far-field setup. However, the device does not operate in the far field but in the near field.
2. The dielectric loading of the finger phantom is studied, which has been well studied by other researchers.
3. The design of the device does not solve critical problems in the field of non-invasive glucose monitoring.
4. Strategy or mechanism of glucose monitoring should be given in detail. The criteria and database for an accurate diagnose.
5. The paper suffers from a lack of novelty. No improvement is observed in the paper upon former works.

 Thank you for your contribution.

With our best regards,

--

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Yusnita Rahayu <yusnita.rahayu@lecturer.unri.ac.id>

Wed, Jan 4, 2023 at 5:51 AM

To: work@jpier.org

Dear editor..

We are in revising our journal.

Due to long holiday, it takes late progres.

I will resubmit within this week.

Thanks for your cooperation.

Dr. Yusnita

[Quoted text hidden]

PIER Editorial and Production OFFICE <work@jpier.org>

Wed, Jan 4, 2023 at 8:46 AM

Reply-To: PIER Editorial and Production OFFICE <work@jpier.org>

To: Yusnita Rahayu <yusnita.rahayu@lecturer.unri.ac.id>

Dear Dr. Yusnita Rahayu:

OK, we will wait for your revision as you informed.

Thank you and with our best regards,

--

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[Quoted text hidden]

Paper Title : Experimental Based Blood Glucose Monitoring with a Non-invasive Cylindrical Biosensor Antenna

Paper ID : 22110409

Authors : Mudrik Alaydrus, Anhar, Huriatul Masdar, Wahid Nova Nugraha, Teguh Praludi, ***Yusnita Rahayu**

No.	Reviewer	Reviewer Comments	Author's response
1	Reviewer 1	In this paper a cylindrical CPW antenna for non-invasive blood glucose monitoring is presented. The paper is well written and technically correct. But, recent research has not been well reviewed. Some minor points should be addressed before being accepted.	Thank you for the comments and appreciation.
		The abstract should be rewritten. In this section, it is better to state the following: operating frequency, structure size, quality factor, sensitivity, error rate of presented design and the innovation that exists in this design.	- Operating frequency was mentioned in the abstract, line 4, line 7 - Structure size was added, line 9. - The error was added in line 8 - The sensitivity is described in line 13-14. - The abstract was rewritten as suggested.
		The introduction section is not well-organized. Moreover, the essential knowledge required to carry the reader along is not conveyed. Also, the novelty of the work is missing here. I suggest writing it from scratch. In the introduction section, some articles that have been published in prestigious journals in recent years and their performance are similar to the proposed design presented in this article should be examined more thoroughly.	Thank you for the suggestions.
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		The parameters and values of the axes are not clear in the figures 4, 6-8. Please increase their fonts.	We have extended the figure 4, 6-8.
		In printed version, color of the curves cannot be recognized in fig. 6.	- We will request for color figure for printed version
	Reviewer 2	The innovation of this design is not clear. 'Introduction' is more like a review without detailed motivation and innovation for this work.	We try to review the technique and type of antenna used for BGL to support our chosen method.
		- The 'Result and Discussions' section could be improved. 1) The general frequency shift between the simulation in Figure 6 and the experiment in Figure 7 needs to be explained. 2) It's necessary to validate the results in Figure 8 with independent measurements of blood glucose. 3) Table 1 does not provide performance improvement compared to other studies.	1. It has explained in pg 8 line 8-10 2. It illustrates in table 3 the comparison between experimental for invasive and non invasive device. 3. In this paper, we compare our proposed sensor with the existing flexible antenna. Many papers discuss the sensor made of hard substrate. Only a few discuss on the flexible sensor. Table 2 demonstrates that the proposed antenna provides extremely robust and flexible designs. This antenna is also printable and offers low-cost, roll-to-roll production.

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		There are number of grammatical errors and some sentences need to be rephrased. Please correct all the errors for better understanding.	We have revised all the grammatical errors
		The text in Fig. 1 (b) is not legible.	We have replaced to antenna geometry
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		Frequency scale in Fig. 7 should be 1.4 to 2.0 GHz	Thank you for the suggestion; we have revised the figure. We also added table 3 to clarify the value.
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		It might not be appropriate to define the device as an antenna. To name it a sensor might be more appropriate. The radiation	Thank you for the comments. We will replace the term "antenna" with the biosensor. Our paper did not show the

		patterns are simulated and measured in a far-field setup. However, the device does not operate in the far field but in the near field.	radiation pattern in both simulation and measurement. For the conclusion, we have removed and rewritten the conclusion.
		The dielectric loading of the finger phantom is studied, which has been well studied by other researchers.	Yes, the phantom has been studied by other researchers.
		The design of the device does not solve critical problems in the field of non-invasive glucose monitoring.	In our opinion, this device can be used as an alternative device to measure blood glucose. We have done the experimental for the both invasive and non-invasive devices, and the frequency shift for every blood glucose increase is listed in table 3.
=		Strategy or mechanism of glucose monitoring should be given in detail. The criteria and database for an accurate diagnose.	We have added table 3 for 10 experimental results obtained for 25 volunteers. Every experiment is done 20x for each user to ensure the sensor's capability. Thus, a total of 500 data is collected during the experiment.
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Yusnita Rahayu <yusnita.rahayu@lecturer.unri.ac.id>

PIER Journals: 22110409, please proofread the typeset version.

1 message

PIER Editorial and Production OFFICE <noreply@service.jpier.org.cn>

Tue, Jan 31, 2023 at 10:44 AM

Reply-To: work@jpier.org

To: yusnita.rahayu@lecturer.unri.ac.id

Dear Dr. Yusnita Rahayu :

This is to kindly inform you that the typeset version of your article

Key: 22110409

Title: Experimental Based Blood Glucose Monitoring with a Non-invasive Cylindrical Biosensor Antenna is available online now. The PDF file of your article may have been edited for English grammar. Please proofread the typeset version in case any typo exists in the typeset process.

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Kindly send the revisions within 3 days, mark revisions in different color or indicate the page and line numbers where the revisions should be made. Do not upload the files of your whole revised article without indication. If there is no revision needed, please online approve the current version.

This is not an acceptance notice; the paper may still be rejected. A final decision of acceptance or rejection will be made after receiving and evaluating your revised version together with additional new review inputs.

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Yusnita Rahayu <yusnita.rahayu@lecturer.unri.ac.id>

PIER Journals: Confirmation of checklist for revision of the paper 22110409.

1 message

PIER Editorial and Production OFFICE <work@jpier.org>

Wed, Jan 25, 2023 at 11:10 PM

To: yusnita.rahayu@lecturer.unri.ac.id

Cc: jpier@emwave.cn

Dear Dr. Yusnita Rahayu:

This email is to confirm that you have submitted the checklist for revision of your article:

Key: 22110409

Title: Experimental Based Blood Glucose Monitoring with a Non-invasive Cylindrical Biosensor Antenna

Authors: Mudrik Alaydrus, Anhar, Huriatul Masdar, Wahid Nova Nugraha, Teguh Praludi, ***Yusnita Rahayu**

Uploaded file(s):

Reviewer response.docx

PIERS FINAL REVISION.docx

Date: 2023-01-25

IP: 114.10.73.180

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Paper Title : Experimental Based Blood Glucose Monitoring with a Non-invasive Cylindrical Biosensor Antenna

Paper ID : 22110409

Authors : Mudrik Alaydrus, Anhar, Huriatul Masdar, Wahid Nova Nugraha, Teguh Praludi, ***Yusnita Rahayu**

No.	Revision	Author's response
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Yusnita Rahayu <yusnita.rahayu@lecturer.unri.ac.id>

PIER Journals: English Revision Request about 221104091 message

PIER Editorial and Production OFFICE <noreply@service.jpier.org.cn>

Fri, Feb 17, 2023 at 11:37 AM

Reply-To: work@jpier.org

To: yusnita.rahayu@lecturer.unri.ac.id

Dear Dr. Yusnita Rahayu:

In order to facilitate the process of your paper, please respond to the following message as early as possible.

22110409: Experimental Based Blood Glucose Monitoring with a Noninvasive Cylindrical Biosensor Antenna
by
Yusnita Rahayu, Wahid Nova Nugraha, Teguh Praludi, Mudrik Alaydrus, Anhar, Huriatul Masdar

Messages:

- 1) In the last paragraph of section 2.2 "These two diagnostic methods are used in this paper, reflection coefficient and resonance frequency," do you mean "Two diagnostic methods, reflection coefficient and resonance frequency, are used in this paper"?
- 2) In the second sentence of section 3 "the measured bandwidth resulting is 277MHz," do you mean "the measured bandwidth is 277MHz"?

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With our best regards,

--

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Yusnita Rahayu <yusnita.rahayu@lecturer.unri.ac.id>

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1 message

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Sat, Feb 18, 2023 at 1:46 AM

Reply-To: work@jpier.org

To: yusnita.rahayu@lecturer.unri.ac.id

Dear Dr. Yusnita Rahayu:

We are pleased to inform you that your article

Key: 22110409

Title: Experimental Based Blood Glucose Monitoring with a Noninvasive Cylindrical Biosensor Antenna
has been scheduled for publication in PIERM, Vol. 115, page 71-81, 2023

<https://www.jpier.org/PIERM/pier.php?paper=22110409>

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Thank you for your contribution.

With our best regards,

--

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