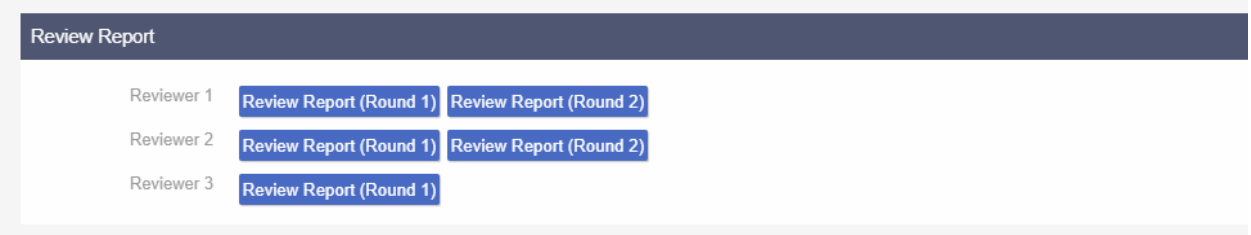
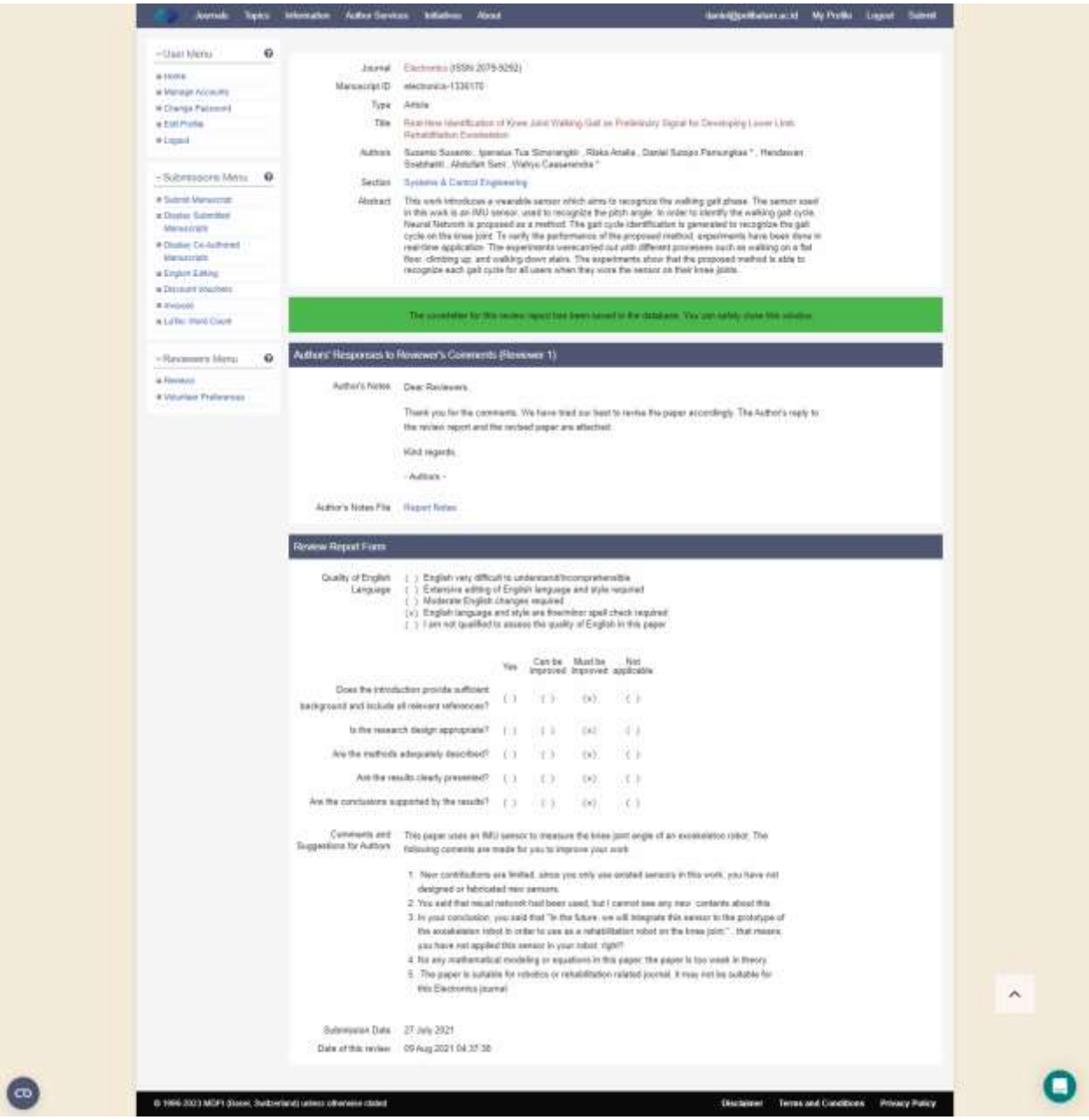

Review Report
Reviewer 1
Review Report (Round 1)
Review Report (Round 2)
Reviewer 2
Review Report (Round 1)
Review Report (Round 2)
Reviewer 3
Review Report (Round 1)

Reviewer 1 round 1



Journal: Electronics (ISSN 2079-9292)
Manuscript ID: electronics-1336170
Type: Article
Title: Real-time Identification of Knee Joint Walking Gait as Preliminary Signal for Developing Lower Limb Rehabilitation Exoskeleton
Authors: Suzanto Suzanto, Ignatius Tua Simorangkir, Rivka Amalia, Daniel Sutopo Pamungkas *, Hendawan Soebhakti, Abdullah Seni, Wahyu Caesarendra *
Section: Systems & Control Engineering
Abstract: This work introduces a wearable sensor which aims to recognize the walking gait phase. The sensor used in this work is an IMU sensor, used to recognize the pitch angle. In order to identify the walking gait cycle, Neural Network is proposed as a method. The gait cycle identification is generated to recognize the gait cycle on the knee joint. To verify the performance of the proposed method, experiments have been done in real-time application. The experiments were carried out with different processes such as walking on a flat floor, climbing up, and walking down stairs. The experiments show that the proposed method is able to recognize each gait cycle for all users when they wore the sensor on their knee joints.

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Authors' Responses to Reviewer's Comments (Reviewer 1)

Author's Notes: Dear Reviewers,

Thank you for the comments. We have tried our best to revise the paper accordingly. The Author's reply to the review report and the revised paper are attached.

Kind regards,

- Authors -

Author's Notes File: Report Notes

Review Report Form

Quality of English Language:
( ) English very difficult to understand/incomprehensible
( ) Extensive editing of English language and style required
( ) Moderate English changes required
(x) English language and style are fine/minor spell check required
( ) I am not qualified to assess the quality of English in this paper

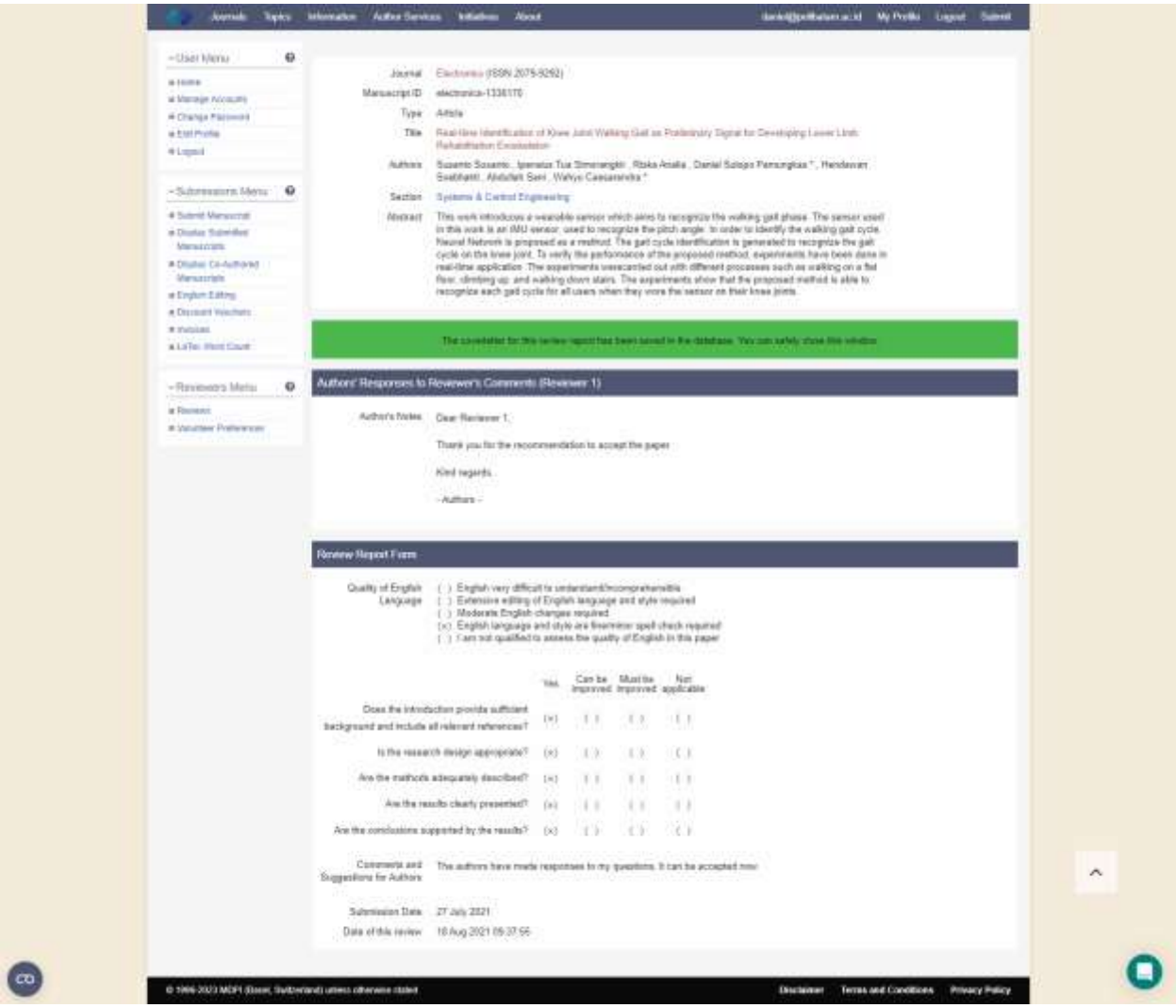
	Yes	Can be Improved	Must be Improved	Not applicable
Does the introduction provide sufficient background and include all relevant references?	( )	( )	(x)	( )
Is the research design appropriate?	( )	( )	(x)	( )
Are the methods adequately described?	( )	( )	(x)	( )
Are the results clearly presented?	( )	( )	(x)	( )
Are the conclusions supported by the results?	( )	( )	(x)	( )

Comments and Suggestions for Authors: This paper uses an IMU sensor to measure the knee joint angle of an exoskeleton robot. The following comments are made for you to improve your work:

1. New contributions are limited, since you only use existed sensors in this work, you have not designed or fabricated new sensors.
2. You said that neural network had been used, but I cannot see any new contents about this.
3. In your conclusion, you said that "In the future, we will integrate this sensor to the prototype of the exoskeleton robot in order to use as a rehabilitation robot on the knee joint.", that means you have not applied this sensor in your robot, right?
4. No any mathematical modeling or equations in this paper, the paper is too weak in theory.
5. The paper is suitable for robotics or rehabilitation related journal, it may not be suitable for this Electronics journal.

Submission Date: 27 July 2021
Date of this review: 09 Aug 2021 04:37:38

Reviewer 1 Round 2



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Journal: Electronics (ISSN 2079-9292)
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The submitted for this review report has been saved in the database. You can safely close this window.

Authors' Responses to Reviewer's Comments (Reviewer 1)

Author's Notes: Dear Reviewer 1,

Thank you for the recommendation to accept the paper.

Kind regards,

- Authors -

Review Report Form

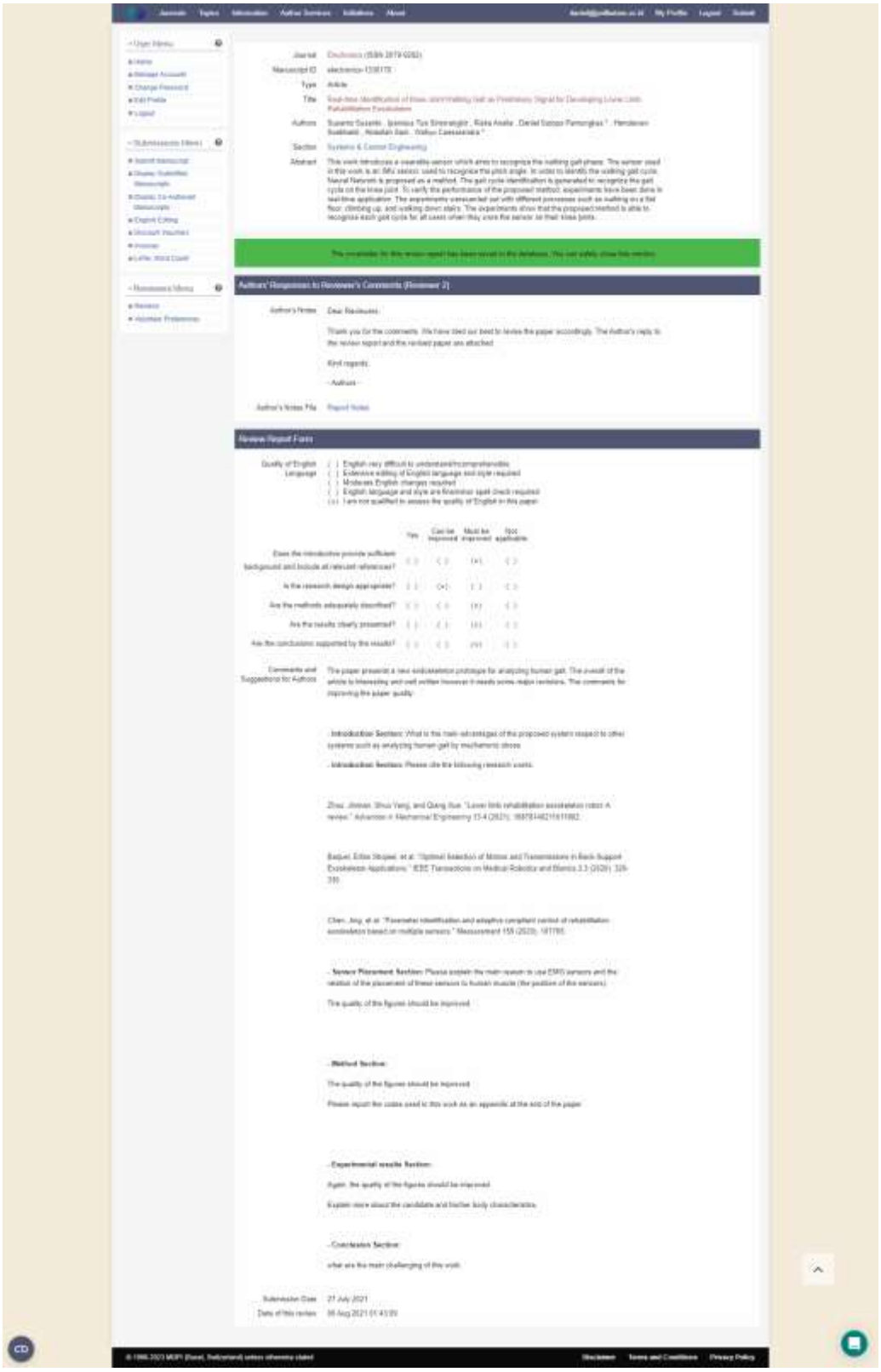
Quality of English Language:
( ) English very difficult to understand/incomprehensible
( ) Extensive editing of English language and style required
( ) Moderate English changes required
(x) English language and style are fine/minor spell check required
( ) I am not qualified to assess the quality of English in this paper

	Yes	Can be Improved	Must be Improved	Not applicable
Does the introduction provide sufficient background and include all relevant references?	(x)	( )	( )	( )
Is the research design appropriate?	(x)	( )	( )	( )
Are the methods adequately described?	(x)	( )	( )	( )
Are the results clearly presented?	(x)	( )	( )	( )
Are the conclusions supported by the results?	(x)	( )	( )	( )

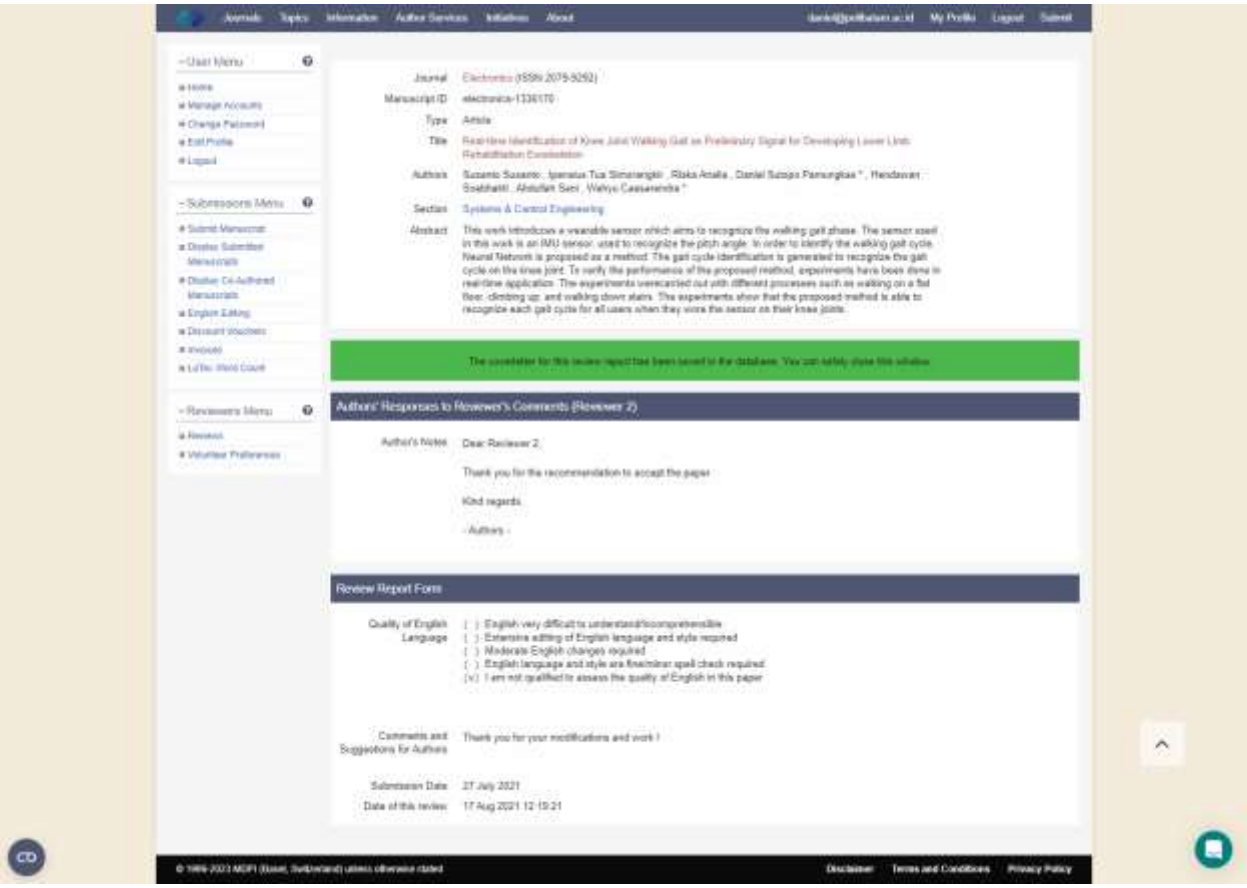
Comments and Suggestions for Authors: The authors have made responses to my questions. It can be accepted now.

Submission Date: 27 July 2021
Date of this review: 16 Aug 2021 05:27:55

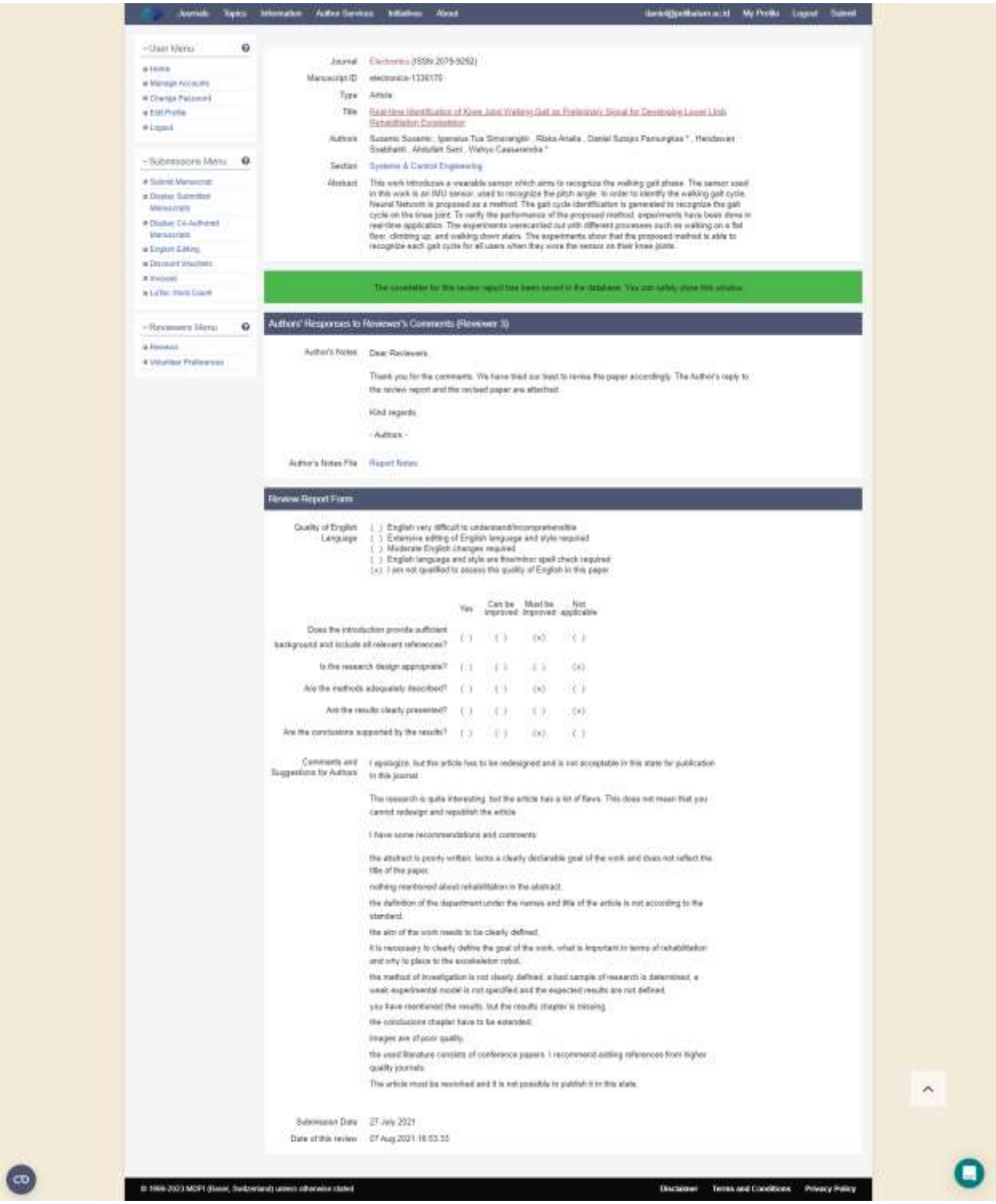
Reviewer 2 round 1



Reveiwer 2 round 2



Reviewer 3 round 1



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The submission for this review report has been saved to the database. You can safely close this window.

Authors' Responses to Reviewer's Comments (Reviewer 3)

Author's Notes: Dear Reviewers,

Thank you for the comments. We have tried our best to revise the paper accordingly. The Author's reply to the review report and the revised paper are attached.

Kind regards,

- Authors -

Author's Notes File: Report Notes

Review Report Form

Quality of English Language
( ) English very difficult to understand/incomprehensible
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	Yes	Can be Improved	Must be Improved	Not applicable
Does the introduction provide sufficient background and include all relevant references?	( )	( )	(x)	( )
Is the research design appropriate?	( )	( )	( )	(x)
Are the methods adequately described?	( )	( )	(x)	( )
Are the results clearly presented?	( )	( )	( )	(x)
Are the conclusions supported by the results?	( )	( )	(x)	( )

Comments and Suggestions for Authors:
I apologize, but the article has to be redesigned and is not acceptable in this state for publication in this journal.

This research is quite interesting, but the article has a lot of flaws. This does not mean that you cannot redesign and republish the article.

I have some recommendations and comments:

the abstract is poorly written, lacks a clearly declarable goal of the work and does not reflect the title of the paper,

nothing mentioned about rehabilitation in the abstract,

the definition of the department under the names and title of the article is not according to the standard,

the aim of the work needs to be clearly defined,

it is necessary to clearly define the goal of the work, what is important in terms of rehabilitation and why to place to the exoskeleton robot,

the method of investigation is not clearly defined, a bad sample of research is determined, a weak experimental model is not specified and the expected results are not defined,

you have mentioned the results, but the results chapter is missing,

the conclusions chapter have to be extended,

images are of poor quality,

the used literature consists of conference papers. I recommend citing references from higher quality journals.

The article must be reworked and it is not possible to publish it in this state.

Submission Date: 27 July 2021
Date of this review: 07 Aug 2021 18:03:33

[Electronics] Manuscript ID: electronics-1336170; doi: 10.3390/electronics10172117. Paper has been published.

jingwen.guo@mdpi.com <jingwen.guo@mdpi.com>
on behalf of
electronics@mdpi.com <electronics@mdpi.com>

Tue 8/31/2021 4:49 PM

To:Susanto <susanto@polibatam.ac.id>;ipensiustuasimorangkir@gmail.com <ipensiustuasimorangkir@gmail.com>;Riska Analia <riskaanalia@polibatam.ac.id>;Daniel Sutopo Pamungkas <daniel@polibatam.ac.id>;Hendawan Soebhakti <hendawan@polibatam.ac.id>;Abdullah Sani <sani@polibatam.ac.id>;Dr Wahyu Caesarendra <wahyu.caesarendra@ubd.edu.bn>

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Dear Authors,

We are pleased to inform you that your article "Real-Time Identification of Knee Joint Walking Gait as Preliminary Signal for Developing Lower Limb Exoskeleton" has been published in Electronics and is available online:

Abstract: https://www.mdpi.com/2079-9292/10/17/2117
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Thank you for choosing Electronics to publish your work, we look forward to receiving further contributions from your research group in the future.

Kind regards,

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