Authors' Response to Reviewers' Comments

Dear Editorial Office and Reviewers,

Thank you very much for your excellent comments and feedback!

We have studied them very carefully and improved our manuscript according to them.

All comments of ours have been marked with red text in our manuscript.

Kindly,

Anwar & co-authors

Reviews comments

Reviewer 4:

Open Review

(x) I would not like to sign my review report
( ) I would like to sign my review report

Quality of English Language

(x) I am not qualified to assess the quality of English in this paper
( ) English very difficult to understand/incomprehensible
( ) Extensive editing of English language required
( ) Moderate editing of English language required
( ) Minor editing of English language required
( ) English language fine. No issues detected

	Yes	Can be improved	Must be improved	Not applicable
Does the introduction provide sufficient background and include all relevant references?	( )	( )	(x)	( )
Are all the cited references relevant to the research?	( )	(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

Assessing the potential of onboard LiDAR-based application to detect the quality of tree stems in cut-to-length (CTL) harvesting operations

Sagar et al.

General comments:

The authors present a novel study that investigates the integration of LiDAR technology in cut-to-length (CTL) harvesting machines to enhance tree selection accuracy and efficiency.

However, the structure of the work does not adapt to that of a scientific document and has serious flaws. Furthermore, the results obtained are insufficient for the article to be publishable in a high-impact JCR journal.

Specific comments:

- Introduction

Delete lines 68-71

Done. Deleted the 68-71

Includes the chapter: "2. The state of the Art" in the introduction and reduces the whole a bit.

Done. The introduction chapter now incorporates the State of the art information on page 3 lines 98 – 184, based on the following suggestion you made the “The defects of tree stems” have been removed from the subchapter in question which helped in reducing the content of the subchapter.

Chapter "2.2 The defects of the tree stem". This should not go in the introduction. Perhaps in Materials and Methods or as part of the Discussion.

Done. We moved chapter “2.2 The defects of the tree stems” to the Materials and Methods chapter on page 6 line 253.

-Material and Methods.

Includes chapter: "3. Mobile LiDAR in Forest Scanning" and its headings in Materials and Methods.

Done. Moved the chapter "3. Mobile LiDAR in Forest Scanning" and its headings to Materials and Methods page 4 line 186, the new heading is “Mobile LiDAR Technology Used”.

Delete lines 231-233.

Done. Deleted lines 231 – 233.

In the chapter "Determining the accuracy" please also include the mean absolute error (MAE) and (MAE%), this will improve the results obtained.

We sincerely appreciate your discerning observation. We have also computed the metrics for Mean Absolute Error (MAE) and Mean Absolute Error Percentage (MAE%). These metrics are analogous to BIAS and BIAS%, respectively. Consequently, we have decided not to include the MAE and MAE% metrics in our paper.

- Discussion and conclusions. Make these two chapters separate. Improve the discussion by discussing with other works in the same field.

Done. Separated the chapter “Discussion and conclusions” into two separate chapters. Discussion pages 14 - 17

Conclusions on pages 17 - 18

Done. The Discussion chapter underwent revisions in response to feedback from other reviewers (1 & 5), resulting in enhancements to the chapter.

Improve the conclusions.

Done. The Conclusion chapter underwent revisions in response to feedback from other reviewers (1 & 5), resulting in enhancements to the chapter.

Submission Date

26 March 2024

Date of this review

15 Apr 2024 16:44:54