Decision letter (Initial Submission)

**IEEE Transactions on AgriFood Electronics - Decision on Manuscript ID TAFE-10-0063-2023**

**From:** danilo.demarchi@polito.it

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19-Oct-2023  
  
Dear Prof. Munasinghe:  
  
Manuscript ID TAFE-10-0063-2023 entitled "RFID Based Fruit Monitoring and Orchard Management System" which you submitted to the IEEE Transactions on AgriFood Electronics, has been reviewed.  The comments of the reviewer(s) are included at the bottom of this letter.  
  
The reviewer(s) have recommended publication, but also suggest some revisions to your manuscript.  Therefore, I invite you to respond to the reviewer(s)' comments and revise your manuscript.  
  
To revise your manuscript, log into https://ieee.atyponrex.com/journal/TAFE and enter your Author Dashboard where you will find your manuscript with a "Revise Submission" link.  
  
You will be unable to make your revisions on the originally submitted version of the manuscript.  Instead, revise your manuscript using a word processing program and save it on your computer.  Please also highlight the changes to your manuscript within the document by using the track changes mode in MS Word or by using bold or colored text.  
  
When submitting your revised manuscript, you will be able to respond to the comments made by the reviewer(s) in the space provided.  You can use this space to document any changes you make to the original manuscript.  In order to expedite the processing of the revised manuscript, please be as specific as possible in your response to the reviewer(s).  
  
Because we are trying to facilitate timely publication of manuscripts submitted to the IEEE Transactions on AgriFood Electronics, your revised manuscript should be submitted by 18-Dec-2023.  If it is not possible for you to submit your revision by this date, we may have to consider your paper as a new submission.  
  
Once again, thank you for submitting your manuscript to the IEEE Transactions on AgriFood Electronics and I look forward to receiving your revision.  
  
Sincerely,  
Prof. Danilo Demarchi  
Editor-in-Chief, IEEE Transactions on AgriFood Electronics  
danilo.demarchi@polito.it  
Associate Editor Comments to Author:  
  
Associate Editor  
Comments to the Author:  
Dear Munasinghe et al,  
  
your manuscript has now given extensive evaluation for IEEE TAFE. Based on the comments of the reviewers (below), we think that a major revision is required. Please modify the manuscript according to the comments and resubmit.  
  
regards  
Luisa Petti  
AE IEEE TAFE  
  
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Reviewer 1:  
This paper presents an innovative approach for fruit monitoring and management using RFID technology. By replacing manual paper-based processes with a cloud-based system, it addresses important issues in the fruit industry, such as timing errors in agro-chemical spraying and inefficient worker deployment. Below are my comments for the author  
  
- Please review the paper for typos, such as "Freetos," which should be corrected to "FreeRTOS."  
  
- The maximum working range of the RFID reader is not mentioned.  
  
- Page 2 line 1: The figures citation is missing "fruits remain inside these bags as shown in Fig.??."  
  
-In the proposed system, a dedicated hardware module has been created for tag reading, serving as a cost-effective RFID reader solution. However, there is no explicit comparison of the hardware's cost within the provided information.  
  
-The mobile application has been independently developed, but it raises the question of why the smartphone internal RFID reader haven't been utilized (instead of using a separate module)? Nowadays almost every smartphone have built-in RFID reader(13.56 MHz), by leveraging the mobile phone's built-in reader, the need for a separate hardware module could be eliminated.  
  
-The working range of the deployed mesh network, i.e., the maximum distance between individual nodes, has not been evaluated. Including details about the estimated working range would be a valuable addition.  
  
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Reviewer 2:  
The paper “RFID Based Fruit Monitoring and Orchard Management System” written by Munasinghe et al. deals with an interesting and hot topic in RFID technology applications.  
I have some comments on the paper content, itemized in the following:  
• The authors cite some relevant work already published on the same topic. However, they should explain in more detail why their solution is different and more functional/low-cost etc. compared to the others.  
• The authors use several common communication protocols for their management system, and the solution they adopt seems quite standardized and simply applied in one specific context. For this reason, the novelty of the proposed solution, from the technological point of view, is not completely clear and should be elaborated more.  
• The authors claim that a small-scale pilot project was carried out to test the entire process, but the results of the testing are not reported or described. What is reported is the detailed functioning of the app and some examples of its use.  
• The text contains some grammar errors/typos, especially in the introduction and should be checked by the authors. Some figures (Fig. 7 and Fig. 8) are too big.  
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Reviewer General Comments:  
Reviewer: 1  
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