

Review Form 1.7

Journal Name:	Asian Journal of Agricultural and Horticultural Research
Manuscript Number:	Ms_AJHR_116393
Title of the Manuscript:	A Smart Irrigation System Based on Arduino Platform
Type of the Article	

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PART 1: Review Comments

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<p>Compulsory REVISION comments</p> <ol style="list-style-type: none"> 1. Is the manuscript important for scientific community? (Please write few sentences on this manuscript) 2. Is the title of the article suitable? (If not please suggest an alternative title) 3. Is the abstract of the article comprehensive? 4. Are subsections and structure of the manuscript appropriate? 5. Do you think the manuscript is scientifically correct? 6. Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form. <p><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></p>	<ol style="list-style-type: none"> 1. The manuscript presents a smart irrigation system developed on the Arduino platform, offering innovation in agricultural technology. Through integration of components like Arduino modules and moisture sensors, it optimizes water application to crops, showing a remarkable 97% efficiency improvement over traditional systems. With practical applications for large-scale and dry season farming, it offers valuable insights for policymakers and practitioners in agriculture and water management. 2. The title should be modified, the title used is too general. I suggest they may use something like "Automated Irrigation System for Crop Watering: An Arduino-Based Approach" or this "A Smart Irrigation water application System Based on Arduino Platform" or this "Smart Watering Solutions for Crops: Arduino-Enabled Irrigation System". However, you may retain the original title if you state your substantial reasons. 3. The abstract provide good information of the work. However, to make it more comprehensive and adhere to standard abstract conventions, here are some suggestions for improvement: <ol style="list-style-type: none"> i. Introduction: Provide a brief introduction to the problem of water management in agriculture and the importance of efficient irrigation systems. ii. Objectives: Clearly state the objectives of the research, focusing on what the smart irrigation system aims to achieve. iii. Methodology: Describe the methodology used in developing and testing the smart irrigation system, including the Arduino platform and other components. iv. Results: Present the key findings of the research, focusing on the efficiency of the smart irrigation system compared to traditional methods and its irrigation rate. v. Conclusion: Conclude with the implications of the research and potential applications of the smart irrigation system. <p>Example for the introduction and objective: "Effective water management in agriculture is essential for sustainable crop production. This research presents the development and evaluation of a smart irrigation system based on the Arduino platform. The objective of the system is to automate water application to crops while optimizing water resource utilization."</p> 4. The section need to be improved. The Subsection especially 2.1 should be improved. The numbering used for the components should be in standard format. Example 2.1 The System Components The smart irrigation system consists of the following components: 2.1.1. Arduino module The Arduino module is a microcontroller... 2.1.2. Arduino LCD Display More comments are mentioned in the General comment section 5. Yes, it is ok, But it need to be improved. More comments are mentioned in the General comment section 6. The reference are ok. However, the author should do the following: You may add more recent citations, also properly add citations to the Figures obtained from the internet. Example Figure 1, 3, 4, 5, and 6. 	
<p>Minor REVISION comments</p>		

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<p>1. Is language/English quality of the article suitable for scholarly communications?</p>	<p>Yes. But, I also, recommend that the author should the check the grammatical structure.</p>	
<p>Optional/General comments</p>	<p>Figure names are missing in Section 2.1. All figures should be mentioned in the text before inserting them. Example 2.1.4. Water pump It is used in this project to pump the water needed for irrigation from the main water tank through pipes. The image of the water pump used in this work is shown in Figure 4.</p> <p>The methodology lacks sufficient information. It is difficult to understand how the author developed the design and implemented the work. The author should include the following in the methodology: <ol style="list-style-type: none"> 1. Simple Algorithm steps of the program to achieve the work 2. Comprehensive Flowchart of the entire system and its explanations You may check this Journal for the comprehensive methodology process: https://www.mecspress.net/ijem/ijem-v10-n3/IJEM-V10-N3-2.pdf</p> <p>Add the picture of the completed soldered project in the result sections as Figure 10.</p> <p>Your conclusion effectively summarizes the key findings and implications of your study. However, to enhance clarity and precision, you may consider some minor revisions as follows:</p> <ol style="list-style-type: none"> 1. Replaced "was designed, setup, and tested" with "designed, set up, and tested" for grammatical correctness. 2. Added "an" before "Arduino microcontroller" to improve clarity. 3. Clarified "automate the application of irrigation water with minimal human intervention" to make the statement more precise. 4. Changed "optimize the use of water resources for irrigation of grain crops" to "optimizing water resource utilization for grain crop irrigation" for clarity and conciseness. 5. Replaced "The result of the experimental test of the system showed" with "Experimental results indicate" for a more direct and concise expression. 6. Adjusted the sentence structure for better flow and readability. 7. Removed redundant phrases to streamline the conclusion. 	

PART 2:

	<p>Reviewer's comment</p>	<p>Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</p>
<p>Are there ethical issues in this manuscript?</p>	<p><i>(If yes, Kindly please write down the ethical issues here in details)</i></p>	

Reviewer Details:

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