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| Book Name: | **Intelligent IoT Systems: From Research to Real-World Solutions** |
| Manuscript Number: | **Ms\_BPR\_6282.7** |
| Title of the Manuscript: | **Smart Gardening System Using Microcontroller and Smart Application** |
| Type of the Article | **Book Chapter** |

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| PART 1: Comments | | |
|  | Reviewer’s comment **Artificial Intelligence (AI) generated or assisted review comments are strictly prohibited during peer review.** | Author’s Feedback *(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)* |
| **Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.** | This manuscript presents an IoT-based Smart Gardening System that addresses a practical challenge of plant care through automated soil moisture monitoring and water management. Its significance lies in combining low-cost sensors, Arduino control, and a simple web interface to create an efficient, user-friendly, and environmentally sustainable solution for urban gardening and smart agriculture. The work contributes to the scientific community by demonstrating how embedded systems and IoT can be effectively applied to real-world sustainability challenges, with potential extensions to precision agriculture and resource-efficient farming practices. |  |
| **Is the title of the article suitable?**  **(If not please suggest an alternative title)** | **Yes** |  |
| Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here. | The abstract is fairly comprehensive, as it clearly states the motivation, methodology, and main outcomes of the work. However, it can be improved for better scientific quality and conciseness. Here are my suggestions:   1. **Emphasize key results** – include brief quantitative or qualitative results (e.g., response time, accuracy, or water-saving efficiency) to strengthen the impact. 2. **Tighten the conclusion** – the last two sentences can be condensed into a single line stressing usability, sustainability, and practical applications. |  |
| **Is the manuscript scientifically, correct? Please write here.** | Based on the provided sections, the manuscript appears **scientifically correct at a fundamental level**, as it applies well-established IoT concepts (sensors, microcontrollers, relay-controlled actuators, and web-based monitoring) to develop a functional automated gardening system. The methodology is logical and the description of hardware/software integration is consistent with practical IoT implementations.  However, there are some points to consider:   1. **Limited scientific depth** – The results section mainly reports functionality but does not provide detailed performance evaluation (e.g., response time, water savings percentage, sensor calibration accuracy, or energy consumption). 2. **Clarity in explanation** – Some sections repeat information (e.g., sensor-to-Arduino-to-relay workflow) and could be streamlined to focus more on scientific validation.   In summary, the manuscript is scientifically correct, but it would benefit from deeper analysis and stronger evidence of performance. |  |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.**  **-** | **Yes** |  |
| Is the language/English quality of the article suitable for scholarly communications? | The language of the manuscript is understandable, but it is **not yet fully suitable for scholarly communication**. While the technical ideas are conveyed, the writing often suffers from repetition, grammatical errors, and informal phrasing. For example, phrases like *“pump sprays the plant”* or *“minimal interference by the man”* are not appropriate for academic style. Similarly, some sentences are overly long and could be made clearer and more concise.  To meet scholarly standards, the manuscript should:   1. **Improve grammar and sentence structure** – avoid run-on sentences and ensure subject–verb agreement. 2. **Adopt formal technical terminology** – e.g., use “activates irrigation” instead of “pump sprays the plant.”   With careful language editing and polishing, the manuscript can be made suitable for scholarly publication. |  |
| Optional/General comments |  **Comment on Results and Validation:** While the system design and functionality are clearly described, the results section would benefit from more detailed performance evaluation. For example, reporting quantitative measures such as response time of the system, accuracy of the soil moisture sensor under varying soil conditions, and percentage of water saved compared to manual watering would strengthen the scientific impact of the work. Including such data would demonstrate reliability and scalability beyond a simple proof-of-concept.   **Comment on Contribution:** The manuscript presents a practical and well-structured IoT-based gardening solution; however, similar systems have been widely reported in the literature. To enhance the contribution, the authors should explicitly highlight what distinguishes this work (e.g., cost-effectiveness, simplicity of integration, real-time web monitoring, or eco-friendly design). |  |

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| **PART 2:** | | |
|  | Reviewer’s comment | Author’s comment *(if agreed with the reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)* |
| **Are there ethical issues in this manuscript?** | *No* |  |

**Reviewer details:**

**Jitu Prakash Dhar, Bangladesh**