|  |  |
| --- | --- |
|  | |
| Book Name: | **Intelligent IoT Systems: From Research to Real-World Solutions** |
| Manuscript Number: | **Ms\_BPR\_6282.2** |
| Title of the Manuscript: | **IoT based smart energy management system for real time monitoring, power optimization and automated home device control** |
| Type of the Article | **Book Chapter** |

|  |  |  |
| --- | --- | --- |
| 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 the design and implementation of an IoT-based Smart Energy Management System (SEMS) integrating ESP32, multiple sensors, cloud connectivity, and automation logic. The work addresses an important and timely challenge of sustainable energy management in households, particularly relevant in the context of increasing urbanization and energy demands. Its emphasis on predictive control, real-time monitoring, and safety mechanisms such as overvoltage shutdown makes it a useful contribution for both academic researchers and practitioners.**  **The importance of this study lies in demonstrating a practical implementation that bridges laboratory-scale IoT experimentation with real-world home automation requirements. It not only advances energy efficiency but also suggests scalable pathways for integration with smart grids and renewable sources, thereby aligning with sustainability goals.** |  |
| **Is the title of the article suitable?**  **(If not please suggest an alternative title)** | **Yes, the title reflects the scope and content of the chapter.** |  |
| 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 detailed and highlights the objectives, methodology, components used, and results. It effectively communicates the scope and findings. To further improve clarity, the authors may reduce technical listing of sensors in the abstract and instead emphasize and practical impact.** |  |
| **Is the manuscript scientifically, correct? Please write here.** | **Yes, the manuscript is scientifically sound. The system architecture, methodology, and experimental validation are described with sufficient technical detail. The inclusion of multiple case scenarios, safety features, and cloud integration adds credibility. Figures (e.g., system workflow and prototype images) enhance understanding.** |  |
| **Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.**  **-** | **The references are mostly recent (2019–2024) and relevant. However, a few additional citations could strengthen the literature section, particularly regarding smart grid integration and renewable energy-based home automation systems.** |  |
| Is the language/English quality of the article suitable for scholarly communications? | **The language is generally clear and suitable for publication. A minor grammatical review may improve flow in some sections (e.g., reducing repetition and simplifying long sentences).** |  |
| Optional/General comments | 1. **Figures should be labeled more consistently (some captions merge with body text).** 2. **A table summarizing features of previous systems vs. the proposed SEMS could make the literature survey stronger.** 3. **The conclusion may highlight specific quantitative improvements (e.g., % energy saving compared to baseline).** |  |

|  |  |  |
| --- | --- | --- |
| **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?** |  |  |

**Reviewer details:**

**Ahmed Muntasir Anwar, Bangladesh**