Review Form 3

Journal Name:	**Asian Journal of Research in Computer Science**
Manuscript Number:	**Ms_AJRCOS_126636**
Title of the Manuscript:	**OPTIMIZING ENERGY EFFICIENCY IN SMART HOME AUTOMATION THROUGH REINFORCEMENT LEARNING AND IOT**
Type of the Article	

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PART 1: Review Comments

Compulsory REVISION comments	**Reviewer's comment**	**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. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.	This manuscript presents a valuable contribution by addressing energy optimization in smart homes through the combination of reinforcement learning (RL) and IoT technologies. This approach stands out because it provides a dynamic, data-driven framework that improves energy efficiency while considering user comfort. I find this manuscript valuable because it introduces a scalable, adaptive model that could significantly influence sustainable living technologies and extend to larger applications, such as smart cities. Its integration of real-time data processing and adaptive learning in an energy context provides actionable insights for the field of sustainable energy solutions.	
Is the title of the article suitable? **(If not please suggest an alternative title)**	The title, "Optimizing Energy Efficiency in Smart Home Automation through Reinforcement Learning and IoT," is largely suitable as it clearly conveys the manuscript's focus. However, a slightly more specific title could be: "Dynamic Energy Optimization in Smart Homes Using Reinforcement Learning and IoT Integration." This alternative emphasizes the adaptive and dynamic aspect of the system.	
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 comprehensive, clearly outlining the problem, methodology, and the potential impact of the research. However, adding a specific metric or quantitative result from the findings would strengthen it by providing a concrete demonstration of the energy savings achieved. This would make the abstract more compelling by showing the system's effectiveness quantitatively.	
Are subsections and structure of the manuscript appropriate?	The manuscript's structure and subsections are appropriate, with a logical flow from the introduction, literature review, and methodology to the results and discussion. Each section builds upon the previous one, providing a clear and thorough presentation of the research. The inclusion of a "Future Work" section is also beneficial, as it highlights the potential for further advancements in the field.	
Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.	The manuscript is scientifically robust, with a solid foundation in established theories of reinforcement learning and IoT applications. The study design, which includes a comprehensive RL model tested in simulated and real-world environments, strengthens the reliability of the findings. Furthermore, the authors provide a clear methodology for the data collection, state-action space definitions, and reward functions, which enhances the technical soundness of the work. Overall, the manuscript demonstrates a thorough understanding of both RL and IoT integration for energy optimization, making it a technically sound contribution to the field.	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form. **-**	The references are generally recent and relevant, with citations from reputable journals covering topics directly related to smart home automation, RL, and IoT. However, including a few more recent publications (from 2023 or later) could further strengthen the literature review by reflecting the latest advancements in RL applications and IoT integration for energy management.	
Minor REVISION comments **Is the language/English quality of the article suitable for scholarly communications?**	The language is clear, scholarly, and suitable for an academic audience. It uses appropriate technical terms and is accessible to readers familiar with the fields of reinforcement learning, IoT, and energy management. Overall, the manuscript maintains a high standard of English quality, which supports effective scholarly communication.	
Optional/General comments	It offers a well-structured, robust exploration of reinforcement learning and IoT for energy optimization, with significant value for the smart home and energy efficiency fields. However, there is room for minor improvements, such as a slightly more detailed quantitative analysis in the abstract and a few additional recent references, which could enhance its impact. The high rating reflects its relevance, innovation, and technical accuracy in addressing a current and critical area in sustainable technology.	

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PART 2:

	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)*
Are there ethical issues in this manuscript?	*(If yes, Kindly please write down the ethical issues here in details)*	

Reviewer Details:

Name:	**Farhang Salehi**
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