Review Form 3

Journal Name:	**Journal of Advances in Mathematics and Computer Science**
Manuscript Number:	**Ms_JAMCS_125673**
Title of the Manuscript:	**Quantum Algorithms in Cloud-Based AI for Predictive Analytics of Cyber Threats to Renewable Energy Systems**
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.	**The paper does an excellent job of introducing cutting-edge technologies and discussing their potential in the realm of cybersecurity for renewable energy. However, it could be strengthened with more specific, real-world examples and a deeper exploration of technical challenges and practical implementations.**	
Is the title of the article suitable? (If not please suggest an alternative title)		
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.		
Are subsections and structure of the manuscript appropriate?		
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.		
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form. -		

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Minor REVISION comments **Is the language/English quality of the article suitable for scholarly communications?**		
Optional/General comments	In abstract section : • The abstract could be more specific about the unique contributions of the paper. For example, it should emphasize whether this is primarily a conceptual proposal or if any practical tests, simulations, or case studies were conducted. • The statement on "hurdles to overcome" could mention specific challenges briefly, like the high costs or current technical limitations of quantum computing. In introduction section - The introduction could benefit from an illustration or diagram to show how renewable energy systems are interconnected with digital networks, emphasizing the scale of potential vulnerabilities. - The discussion around cyber-attacks could be expanded by offering statistical data on past incidents or providing references to known cyber-attacks on energy systems. In section 1.2 - The section could provide a clearer distinction between what AI and cloud computing can accomplish today versus what quantum computing could offer in the future. - The roles of each of these technologies could be more explicitly compared—how would quantum computing significantly outperform AI in this context? In section 1.3 This section could briefly mention some of the specific challenges (e.g., technical limitations, cost) that will be covered later. Providing a preview of these issues could help readers focus on the critical points as they progress through the paper. In section 2. Literature Review - The review could benefit from more detailed examples of real-world cyber-attacks on renewable energy infrastructures, as these would add empirical weight to the argument. - While the types of threats are well explained, the impact on the end-user or public perception of renewable energy could be explored more deeply, especially in relation to social or economic consequences. In section 3. Foundations of Quantum Computing and Quantum Algorithms - While the basic principles are well-covered, the section could delve more into how quantum computing's advantages would apply specifically to renewable energy systems. A real-world use case (even hypothetical) might clarify how these concepts relate to energy infrastructure security. - The description of quantum algorithms could be more detailed, explaining exactly how these algorithms would work in practice within a cybersecurity framework. For example, how would Grover’s algorithm be applied to detect specific types of cyber-attacks in real-time? - A more comprehensive list of potential quantum algorithms could enhance this section, with an exploration of newer developments in the field. In section 4. AI and Cloud Computing in Cybersecurity - The section could provide specific examples of successful AI applications in renewable energy systems or other critical infrastructures, adding empirical support to the claims. -	

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	A comparative analysis of traditional AI versus quantum-enhanced AI for threat detection would help emphasize the advantages of the latter. - A discussion of edge computing as an alternative or complement to cloud-based AI could broaden the paper's perspective on cybersecurity solutions. In section 5. Conclusion - The conclusion could better address the practical next steps for implementing quantum-AI systems in renewable energy. What needs to happen for these systems to become mainstream? This would add more closure to the paper. - The technical and cost-related challenges could be summarized more succinctly, and a clearer call to action for stakeholders in energy, technology, and policy could provide a stronger finish.	

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)*	

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