

Review of: "Design of an intelligent controller for improving the solar system efficiency"

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Potential competing interests: No potential competing interests to declare.

- The article focuses on developing a maximum power point tracker (MPPT) using a fuzzy logic controller for photovoltaic systems. While not entirely new, this concept addresses a critical aspect of solar energy efficiency. The authors compare the proposed fuzzy logic controller with the conventional Perturb and Observe (P&O) method, providing a fresh perspective on MPPT control strategies. Using fuzzy logic for MPPT control in photovoltaic systems demonstrates an innovative approach. It promises better adaptability to varying environmental conditions and improved efficiency. The findings indicate that the fuzzy logic controller outperforms the classic P&O algorithm regarding MPPT accuracy and response time under various operational conditions. This is a significant advancement in the field.
- The article is well-structured, with transparent sections including Introduction, MPPT Control Overview, Simulation of PV System and Results, and Conclusion. It also includes figures and tables, such as the membership functions for inputs and outputs and simulation results, which aid in understanding the methodology and results.
- The language is technical yet readable, suitable for the target audience in renewable energy systems.
- The document follows a standard academic format with appropriate referencing and structured sections. A comprehensive list of references indicates thorough research and grounding in the subject matter.

Worthiness for Publication: The article contributes valuable insights into fuzzy logic in MPPT for solar systems, which could benefit researchers and practitioners in renewable energy.

Recommendation: I recommend this article for publication. It provides substantial evidence of improved efficiency in solar systems using a novel control strategy and contributes to the broader discourse on renewable energy technologies.

Additional Recommendations:

- The article could benefit from discussing potential real-world applications and limitations.
- Further comparative analysis with other intelligent control methods, like neural networks or hybrid systems, could strengthen the findings.