

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

Rajakumar Vinifa<sup>1</sup>

<sup>1</sup> Anna University

Potential competing interests: No potential competing interests to declare.

## 1. **Block Diagram:**

A block diagram illustrating the proposed system is not provided. Please include a clear block diagram to enhance understanding of the overall system architecture.

## 2. **MPPT Converter:**

Specify the type of converter used for MPPT implementation. This information is crucial for understanding the control strategy employed in your system.

## 3. **PV Panel Specifications:**

Include detailed specifications of the PV panel used in your study. This should encompass parameters such as maximum power, voltage, current, and temperature coefficients.

## 4. **Discrepancy in Power Values:**

Figure 2 and 3 suggest a maximum power of around 260 W under standard atmospheric conditions. However, Figure 10 shows a simulated output of approximately 80 W. Clarify this inconsistency and provide an explanation for the observed difference.

## 5. **Results Explanation:**

Elaborate on the results obtained in the simulation. Clearly articulate the factors influencing the power output and how your proposed system addresses or responds to these factors.

## 6. **Figure Captions:**

Ensure that figure captions are clear, concise, and provide sufficient information to understand the context of the figures.

## 7. **Spelling and Formatting:**

Thoroughly proofread the document to correct all spelling mistakes, such as the Y-axis label in Fig. 9. Consistency in formatting is essential for a professional presentation.

## 8. X-axis Label in Fig. 8 and 9:

Explain the meaning of 'Temps' as the X-axis label in Figures 8 and 9.

## 1. Comparison Representation:

Represent the comparison between Perturb and Observe (P&O) and Fuzzy Logic in table form. This will provide a clearer and more organized presentation of the comparative analysis.

## 10. Numerical Performance Comparison:

Include numerical data to compare the performance of P&O and Fuzzy Logic. Metrics such as efficiency, tracking accuracy, and response time can be considered.

## 11. Interpretation of Results:

Discuss how the PV power output varies under different irradiation and temperature conditions. Provide insights into the system's adaptability to changing environmental factors.

By addressing these points, your document will become more comprehensive, clearer, and better structured for effective communication of your research findings.