Review of: "Grid-secluded Induction Generator with ANN and Interval Type-2 Fuzzy based Controller for Wind Power Generation with Smart Load Control"

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Potential competing interests: No potential competing interests to declare.

This research paper proposes a novel approach for wind power generation using a grid-secluded induction generator controlled by an Artificial Neural Network (ANN) and an Interval Type-2 Fuzzy (IT2F) based controller, with smart load control. The paper suggests that this approach is suitable for microgeneration schemes in remote and grid-inaccessible areas.

The paper presents a clear and concise methodology for the proposed approach, including the use of an inverter to regulate load voltage and a three-phase inverter for DC conversion and feeding of loads. The ANN and IT2F-based controllers ensure optimal power generation and smart load control, respectively.

The conclusion provides a concise summary of the proposed approach and its benefits, highlighting its ease of implementation and potential for use in standalone, grid-secluded applications. Additionally, the paper suggests future research directions for the proposed approach, such as its connection with a grid and further improvement of control for wider wind speed range utilization.

However, the following points need to be addressed by the authors:

1. Scalability: While the proposed approach is suitable for microgeneration schemes in remote and grid-inaccessible areas, it may be limited in its scalability for larger wind power applications.
2. Robustness: The proposed approach appears to address voltage regulation and load control effectively during perturbations, but there may be additional considerations for robustness and reliability in real-world applications.
3. Cost-effectiveness: The paper does not provide information on the cost-effectiveness of the proposed approach compared to other wind power generation methods.