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

Zahra Dehghani Arani[1]

1 University of Kashan

Potential competing interests: No potential competing interests to declare.

This paper presents a fuzzy logic controller (FLC)-based maximum power point tracker (MPPT) scheme for photovoltaic (PV) systems. The obtained results indicate that the proposed FLC-based MPPT scheme is more robust and effective than the perturb and observe (P&O) method. In my opinion, there are a lot of serious concerns in terms of analysis, presentation, and comparison which make the paper not suitable for publication at least in the current version. Specifically:

1. Many published papers present an FLC-based MPPT scheme. The authors have not referred to them and investigated. What is the technical challenge of existing FLC-based MPPT methods, which motivates authors to present another FLC-based MPPT scheme? The Introduction section has not been written well at all. The literature review must be significantly improved to determine the technical challenge of published papers in this field and the research gap.
2. The authors must investigate existing FLC-based MPPT methods in Section III by simulation results to justify the significance of the proposed method. In fact, the comparison with the classic P&O method is not sufficient.
3. The performance of the proposed FLC-based MPPT method should investigated under partial shadow conditions.
4. Comparative studies with available methods must be strengthened in Section III by considering more case studies.