

Review of: "Backstepping Control Design in Conjunction with an EKF-based Sensorless Field-Oriented Control of an IPMSM"

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Potential competing interests: No potential competing interests to declare.

1. The abstract is detailed but can be made more concise. Consider summarizing the key contributions and findings succinctly to improve readability.
2. The terminology used should be consistent and clearly defined. For instance, "collector and brushless electronic commutation machines" could be clarified or rephrased for better understanding.
3. While the article mentions the use of a backstepping control approach and EKF, it does not provide sufficient insight into the novelty of the proposed methods. Highlighting specific advancements or improvements over existing methods would strengthen the article to suit a wider audience.
4. Expanding on how the Lyapunov stability theorem is utilized specifically in the context of backstepping control could provide more depth.
5. The article should clearly state the scope of the research. For example, it mentions simulations under various conditions but does not specify the extent or range of these conditions.
6. The contribution of the research should be more explicit. What are the main achievements or innovations of this work compared to existing literature?
7. The explanation of the backstepping control approach and its integration with FOC could benefit from more detail. How does the backstepping control enhance the FOC scheme specifically for IPMSMs?
8. The role and design of the EKF are crucial but are briefly mentioned. Elaborating on how the EKF improves estimation accuracy and system performance would be beneficial.
9. Mentioning any comparisons with other existing methods in terms of performance metrics would add value to the validation process.