

# Review of: "Optimized Low-Powered Wide Area Network within Internet of Things"

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**Potential competing interests:** No potential competing interests to declare.

## **Abstract:**

1. The title is "Optimized Low-Powered Wide Area Network within Internet of Things" and the study focused on LoRa power consumption model design, simulation of IoT wireless sensor networks, and implementation of SF allocation across the wireless sensor network and results analysis. I believe that you need to elaborate briefly on how the LoRa power consumption will assist to optimize the Low-Power Wide Area Network.
2. The research gap can be explained on a high level. For example, how does the proposed optimization contribute to the broader field of IoT and LPWANs?

## **Introduction:**

1. Please give an explanation on LoRaWAN, what the advantages of it are and how it forms part of a broader field of LPWAN technologies.
3. **Research Gap:** The research gap is not clear enough. It can be discussed better by giving examples of limitations of solutions in literature.
4. Consider reordering the objectives to follow a logical sequence. For example,
5. **Related work :** The related work is a little loose from your study. You need to build arguments that link your work with related studies. You need to explain the links by discussing the elements that contribute to your suggested solution but also mention the limitation that your study will address. Avoid detailed explanations of experiments except if it is relevant to your study.

## **Methodology :**

1. Figure 3.1 can explain the research framework especially when description of the figure is made to explain all parts of it.
2. It will be more clear if you use units for power values (e.g., Watts or mW, J) to explain the energy calculations.
3. The choice of a 30m x 20m area for the simulation is reasonable, but you could briefly explain why this specific size was chosen.

## **Results:**

1. Please explain the limitations of the solution.