

## Review of: "A Smart Vehicle Charging Station Identification Based On IOT with Hybrid Grey Wolf-Bat Optimization Enriched On Artificial Neural Networks Recognition Methods"

## Aleksander Król<sup>1</sup>

1 Silesian University of Technology

Potential competing interests: No potential competing interests to declare.

The paper deals with the issue of charging station identification based on IoT. The Hybrid Grey Wolf-Bat Optimization algorithm is proposed to indicate the currently nearest available charging station. The idea is interesting and the issue important for EV drivers. Formally, the applied methods do well, however, the paper is poorly written. There are many figures and tables, which are not referenced to. A list of detailed remarks is as follows:

- 1. In the sentence "The SOC of a battery may ..." acronym SOC is not explained. All acronyms should be defined at the first use.
- 2. BMS the same.
- 3. Section II. Related works. At the top of page 4. You have introduced your method (GWOBA), but in the next paragraph the MACO method is mentioned without any connection with the previous thread. Please, rearrange it.
- 4. As far as I understand, the availability of a charging point is determined by analyzing the captured image. It's a great idea, but wouldn't it be simpler to get this information directly from this device? I'm convinced that it should be somehow possible, even more so in the age of IoT! Please, comment this.
- 5. Table 1 is not referred to at all what is its meaning?
- 6. Page 5. What does term (X, X) mean?
- 7. Page 6. It would be more convenient to a reader if there was a flowchart of the GWOBA method presented instead of the pseudocode. Try at least to add a paragraph on the main ideas of your algorithm.
- 8. Page 6. Section IV. Probability Correlated Neural Network (PCNN) based Identification. Acronyms KNN, DT, NB, C4.5, SVM, RVM, DNN, DBN, and LSTM should be explained.
- 9. The heading of this section announces an application of a neural network, meanwhile there is no mention on it in the text.
- 10. Figure 2. It is not referred to in the text.
- 11. Table 2. It is not referred to in the text. I think, there is no need to provide so many decimal digits.
- 12. Figures 2 and 3. Titles for the vertical axis are missing. Precision, recall, accuracy, f1-score, similarity coefficients please define these terms.
- 13. What does term RCNN mean? It was not mentioned earlier.



- 14. Table 3, Figures 4 and 6. They are not referred to in the text.
- 15. Where is Figure 5?