

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

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Potential competing interests: No potential competing interests to declare.

## **Article review**

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

The strength of the article is that the article is relevant - use of information technologies in photovoltaic charging stations.

- 1. The work does not take into account the coordination of the production of electrical energy and its consumption. Whether the detection of a free parking space can guarantee the operability of a photovoltaic charging station, for example, by limiting the consumption for charging at peak load.
- 2. The work does not take into account the mandatory presence of a rechargeable battery. For example a Smart Grid technology has been proposed to support the operation of photovoltaic charging stations, based on the prediction of changes in battery capacity. Advanced solutions for changing the bandwidth allowed to regulate the voltage in the distribution network by maintaining the power factor of the photovoltaic charging station. The battery, as a mandatory element of the technological scheme of a photovoltaic charging station, becomes the main element of voltage regulation in the distribution system. This is possible if you forecast the change in its power. In this case, the battery becomes the basis of the redistribution of electrical energy between the network and the photovoltaic module, that is, it becomes the voltage regulator in the distribution system. In addition, the assessment of the change in battery capacity makes it possible to maintain the power factor of the photovoltaic charging station.

It is necessary to reconcile the strength of the article with it presentation to readers in order to provide electric vehicle charging.

Shortcomings in work. Fixes needed.

- 1. The abstract should reflect the results of work with specific data.
- 2. It is necessary to clearly and succinctly formulate the purpose of the work.



- 3. In order to achieve the goal of the research, it is necessary to present the task.
- 4. The conclusions should reflect the solved tasks with specific data.

In Proposed Work. It is necessary to specifically justify the proposed architecture. It is Mathematical and logical description required.

In Results and Discussion "Figure 3 displays the Mean Absolute Error (MAE) of both current and new methodologies, including the k-means, deep LSTM, and recurrent neural network categories. By using this evaluation method, which produces a decreased MAE value, as compared to the other techniques, it is found that the proposed GWBOPCNN technique offers the reduced MAE value". There is no concrete confirmation. The Results and Discussion should reflect the solved tasks with specific data.

In Conclusion "The aim of the paper is being to develop an IOT based monitoring system and controlling for reducing the waiting time, delay of the process and increased response time." It is not included in the conclusions. There is no concrete confirmation in Conclusion. The conclusions should reflect the solved tasks with specific data. Figures and tables must be put in order. First, a description of the table, then its presentation. First, a description of the drawing,