

Review of: "New Method to Identify Potential Illegal Water Use Location by Using Remote Sensing and Neural Networks in Laguna de Aculeo, Chile"

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Potential competing interests: No potential competing interests to declare.

I would suggest the authors go through the following specific comments to resolve the issues in the manuscript.

This article describes a New Method to Identify Potential Illegal Water Use Location by Using Remote Sensing and Neural Networks in Laguna de Aculeo, Chile. I found the idea interesting; however, the methodology lacks logical sense due to the general presentation of the manuscript.

General comments:

Abstract: Authors have to rewrite the abstract because the current format has many issues that need to be improved. Overall, the abstract mainly focuses on methods; however, it should include substantial findings, and the first sentence(s) should start with the rationale of the study. Authors also need to correct some grammatical errors based on the given comments.

Introduction: The introduction could be substantially improved by incorporating more background information. The justification part (last paragraph of the introduction) is insufficient; authors must pay attention to make it robust based on the knowledge gap in the relevant literature.

Methods: Even if the method section is well written compared to the other sections, there are still some formatting issues and minor issues to be improved based on the specific comments. One method is completely missing; authors have used the wavelet technique for analyzing their data, and however, there is no explanation about this technique and underlying theory in the methods section. Authors must include it in the methods section.

Results: The results section has a lot of issues that need to be resolved before accepting this article. The authors need to focus on improving the English. Specifically, there are many grammatical errors, punctuation errors, repetition of information, and formatting issues. I have edited some and put comments on the other errors for further improvement.

In the conclusion section, start with a brief summary of what you did in terms of data used and analysis made, and then summarize the main findings with clear remarks about the evidence provided in the study (if possible, by a list of bullet points). Also, please add the limitations of the study (if any) and consider suggesting further research to follow up.

I found some basic grammatical errors, especially related to the missing auxiliary verbs, mixing of present and past tenses

in a sentence. The authors are requested to thoroughly check the article to identify and resolve these issues.

Specific Comments:

-Please change Figs. 4 and 6

- Validation means that the study is supported by statistical tests, but in the case of this article, it only includes evaluation using metrics based on error performance. Therefore, I suggest checking in order to express the idea correctly.

- There is a lack of structure in this manuscript; in its actual form, it is really confusing, and I do not see a methodology to follow. For example, it is really difficult to replicate the experiments.

- From a computer science point of view, there are different paradigms to produce models in the machine learning field; however, in this paper, only algorithms from the symbolic paradigm are evaluated. The authors should clarify their election in order to establish the pertinence of the study.

- There are some important missing details: how the optimal parameters of the algorithms used in this paper are obtained. This concern should be mentioned.