

Review of: "Spatial Analysis of Soil Fertility Using Geostatistical Techniques And Artificial Neural Networks"

Amirhossein Najafabadipour¹

¹ Shahid Bahonar University of Kerman

Potential competing interests: No potential competing interests to declare.

Positive points of the article:

1. The title of the article is acceptable.
2. Different sections of the article are correctly separated.
3. The research method is appropriate, but not much innovation has been done in the article.
4. The introduction is appropriate, but it is better to use more up-to-date and related articles.
5. The results are acceptable, but some parts need to be modified.
6. The quality of figures and tables is acceptable.
7. The conclusion and references are appropriate.

Correction points of the article:

1. Writing and grammar errors are observed in different parts of the research. It is suggested to review all sections of the research.
2. Use a point as a decimal separator.
3. Unfortunately, the abstract fails to present a clear summary of the main contributions presented in the paper, and why they are important. It is suggested, to rewrite the abstract.
4. keywords should be sorted alphabetically.
5. There are a lot of missed up-to-date references in all of the introduction sections. In addition, the novelty of the article should be stated in the last paragraph of the introduction.
6. The materials and methods section is very weak, especially in the neuro-fuzzy algorithm section. In addition, the statistical parameters formula should be written in this section.
7. Explain more about soil testing methods in the soil sampling section.

8. The results of SPSS software should be explained in the statistical analysis section.
9. In the Digital soil fertility class model section, please explain more about the development of the model with the artificial neural network. The number of data points to the model and their division into train, test, and validation should be explained. The number of neurons, the type of training algorithm, and the type of transfer function should be determined.
10. Only observations are stated in the Results and Discussion section, it is suggested to have a more complete interpretation of the results of this section.
11. In Table 1, instead of Ave. use Mean.
12. In Figures 4 and 5, each case should be interpreted separately.
13. In Figures 4, 5, 7, and 8, the numbers are not well seen.
14. In Figures 1, 2, 5, and 7, the latitude and longitude coordinates should be written.
15. In Table 3, explain the RMSS parameter.
16. In Figure 7, \bar{E} should be explained.
17. In Figure 8, the legend should be modified (English language).