

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

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Potential competing interests: No potential competing interests to declare.

The paper presents a study of spatial analysis of fertility classes through the prediction of chemical and physical properties of the soil obtained in laboratory analyses by means of geostatistical techniques, and their subsequent grouping by means of a fuzzy artificial neural network algorithm. This issue is very important. The proposed approach is not completely clear, some steps have to be better explained:

- 1 - The abstract is very general and the authors should avoid general descriptions in abstract and should include more results.
- 2 - The paper lacks to describe related works as well as a state of the art of research including the methods used in literature making not clear the originality and soundness of the research work.
- 3 - Authors should enhance the introduction section by adding more recent and relevant articles related. The authors need to discuss their contributions compared to those in related papers. From that discussion author will provide a proper research question and the contribution of the paper.
- 4- Contribution of the paper should be clearly stated.
- 5- First paragraph in itroduction section , Revise the citation as per the journal format
- 6- Page 2, (Within the spatial analysis techniques ----- please, Support this sentence with proper references such as: [doi:10.1088/1742-6596/1973/1/012060](https://doi.org/10.1088/1742-6596/1973/1/012060); and <https://doi.org/10.1007/s12518-021-00363-6>
- 7- Page 2, (For the generation of soil classes there are spatial ---- please, Support this sentence with proper references such as: <https://doi.org/10.18280/ijdne.170514>
- <https://doi.org/10.18280/ijdne.150318> ;
<https://doi.org/10.18280/ijdne.180405>
8- Figure (1) please, add latitude and longitude.
- 9- Data collection are not well captured hence suffering from many shortcomings.

8- Authors are requested to add future recommendations for the study area in the conclusion.