

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

Pritee Parwekar¹

¹ SRM Institute of Science and Technology

Potential competing interests: No potential competing interests to declare.

The paper features a captivating title, and the authors have effectively met the reader's expectations. The study involved the analysis of 10 variables at a specific case study location, leading to the creation of soil property maps through geostatistical analysis and interpolation employing ordinary kriging. Additionally, artificial intelligence techniques were utilized, employing an artificial neural network classification system to establish soil fertility classes via the Fuzzy Kohonen Clustering Network (FKCN) algorithm. The analysis of soil fertility is a significant scientific pursuit, especially considering the escalating anthropogenic pressures on soil resources in recent decades. This study aims to assess spatial variations in soil fertility by employing Geographic Information Systems (GIS) and Artificial Neural Networks techniques. While the paper exhibits a well-organized structure, there are essential revisions that need to be addressed. The author should contemplate expanding the introduction by incorporating findings from other researchers in the same field. One suggestion to the author is the coefficient of consolidation in soil is a crucial engineering property and a vital parameter for the design and assessment of geotechnical structures, author may include the study of "Prediction of coefficient of consolidation in soil using machine learning techniques" in the paper and the conclusion can be given in one single paragraph.