

Review Form 3

Journal Name:	Asian Journal of Soil Science and Plant Nutrition
Manuscript Number:	Ms_AJSSPN_128373
Title of the Manuscript:	Prediction of Soil colour using vis-NIR spectroscopy and machine learning models
Type of the Article	

General guidelines for the Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guidelines for the Peer Review process, reviewers are requested to visit this link:

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PART 1: Comments

	Reviewer's comment	Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.	The manuscript combines conventional and cutting-edge methods, offering insightful information about the connection between soil colour and its chemical characteristics, especially soil organic carbon. A new method for precisely predicting soil properties is demonstrated by combining spectral data, machine learning models, and field-based Munsell colour observations. Their promise for precision agriculture and extensive soil monitoring is shown by the great prediction of accuracy attained by models such as Random Forest. The results provide instruments for better soil quality monitoring and environmental management, making a substantial contribution to soil science for improved soil quality assessment and environmental management.	
Is the title of the article suitable? (If not please suggest an alternative title)	Yes	
Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.	The abstract is precise and accurate. However, few suggestions were made in the comments to improve clarity and remove redundancy. Eg. "However, The linear relationship was found between the chroma" could be corrected to : A linear relationship was observed between chroma and	
Is the manuscript scientifically, correct? Please write here.	The manuscript provided systematic and empirical data. Therefore, it is scientifically correct.	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.	One statement of fact in the introduction which was not referenced could be considered ie. Observations made in field studies reveal that soil color is not only readily discernible but also closely associated with numerous other soil properties.	
Is the language/English quality of the article suitable for scholarly communications?	Yes. However, suggestions made in the comment section could be considered to improve clarity	
Optional/General comments		

PART 2:

	Reviewer's comment	Author's comment <i>(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

Reviewer Details:

Name:	Solomon Kwadjo Tetteh
Department, University & Country	University of Education Winneba, Ghana