[ESRJ] Article Review Request

Inbox

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Earth Sciences Research Journal <earthjour_fcbog@unal.edu.co>
to me

Dear Prof. Srood Naqshabandi,

The Earth Science Research Journal [ESRJ] committee considers that you might support us as a reviewe
analysis of K-Nearest-Neighbor Method and K-means clustering analysis for lithological interpretation of W
to your wide experience in the field which has been submitted to Earth Sciences Research Journal. The su
hope that you will consider undertaking this important task for us.

Please log into the journal web site by 2022-11-08 to indicate whether you are willing to undertake the rev
submission and recording your review and recommendation.

The review itself is due 2022-11-29.

Submission URL: https://revistas.unal.edu.co/index.php/esrj/reviewer/submission?submissionId=100945&

Thank you for considering this request.

Earth Sciences Research Journal
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"Comparative analysis of K-Nearest-Neighbor Method and K-means clustering analysis for lithological inte
Oilfield/Ecuador"

Abstract

The interpretation of lithology from geophysics log is possible applying the machine learning algorithms wi
process. For the present investigation, interpretation and prediction of lithology type applying Nearest-Neig
clustering method is carried on for 7 wells logging data sets of the Shushufindi Oil field of Ecuador.

With assistance of MATLAB, lithological interpretation is completed for the wells SF_124D, SF_130, SF_1
The croosploting of Neutron porosity vs. Density log for lithological interpretation is a well-known and exte
comparison parameter between the selected methods. As well as on KNN and K-means methods the logs
potential, and deep resistivity, It was because their geophysics correlation with the lithological type determ
from sedimentary environment dominated by sandstone, limestone and shale, where is made the interpre
the reservoir.

The prediction is optimistic for the supervised method; however, it can be upgraded for the unsupervised c
hierarchical way. Furthermore, the error can be reduced if the data are upscaling, because at the current v
methods and the parametric interpretation is high.

Best regards,

ALEXANDER CANEVA
Editor-in-Chief
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