

Review Form 3

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| Journal Name: | Journal of Engineering Research and Reports |
| Manuscript Number: | Ms_JERR_125433 |
| Title of the Manuscript: | A Computer Aided System for Reservoir Rock Classification |
| Type of the Article | |

Review Form 3

PART 1: Review Comments

| Compulsory REVISION 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. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part. | This manuscript will close a significant gap in oil and gas exploration field if it is well written; if the methodology is clear and implemented with a great number of data to prove the performance of developed system. | |
| Is the title of the article suitable? (If not please suggest an alternative title) | Yes, the article title is suitable. | |
| 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. | Yes, the abstract is comprehensive. Kindly indicate the number of images used in the model and the value of the performance metrics for model performance assessment. | |
| Are subsections and structure of the manuscript appropriate? | The structure of the manuscript needs to be reviewed by the author. Use the following outlines for the article: <ol style="list-style-type: none"> 1. Introduction 2. Materials and Methods 3. Results and Discussion 4. Conclusion and Recommendations <p>The subsections are almost good except the subsection 5.6. titled "Production stage" that must be removed from the manuscript.</p> | |
| Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part. | This manuscript can close a significant gap in oil and gas exploration geology field. However, the methodology must be clear and its implementation must be performed with a great number of data to prove the performance of developed system. | |
| Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form. | Yes, the references are sufficient. | |

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| <p>Minor REVISION comments</p> <p>Is the language/English quality of the article suitable for scholarly communications?</p> | <p>Yes, the English quality is ok.</p> | |
| <p>Optional/General comments</p> | <p>A. Reference the figures and tables in the text. B. About the subsection 5.6. Production stage: Production is not a subdiscipline of geology. Kindly remove this subsection. C. Number the different formulae of the document D. About the subsection 6.3. The Energy Functional: E_{cont} is unique and one has multiple $\ P_i - P_{i-1}\$ that must be used Review the formulae of E_{cont} please. E. In the subsection 6.4 Feature extraction, define each feature of the formulae. Use the title “Moment of order 1-7” instead of “Moment (1-7)”. F. The methodology is not well written. It must be much clearer to allow its use by readers. G. Use a_{ij} for the features of matrix V. H. Subsection 7.4 must be part of Results and Discussion section. I. The dataset used to train and test the model must be much larger. J. Try to get a large-size dataset and perform the work again. K. The first conclusion “The system is capable of classifying rocks and can be used as well to classify oil rocks or any other type of rocks” can't be taken since UAC is used to compare models and aid to choose the best model.</p> | |

PART 2:

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| | <p>Reviewer's comment</p> | <p>Author's comment (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)</p> |
| <p>Are there ethical issues in this manuscript?</p> | <p><i>(If yes, Kindly please write down the ethical issues here in details)</i></p> | |

Reviewer Details:

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|---|---------------------------------|
| <p>Name:</p> | <p>Djoï Noukpo Andre</p> |
| <p>Department, University & Country</p> | <p>Benin</p> |