

**Review Form 1.7**

Journal Name:	<b>Journal of Advances in Mathematics and Computer Science</b>
Manuscript Number:	<b>Ms_JAMCS_112122</b>
Title of the Manuscript:	<b>Uncertainty Quantification of the Buckley Leverett Equation with Random Oil Viscosity</b>
Type of the Article	

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**PART 1: Review Comments**

	Reviewer's comment	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><b>Compulsory</b> REVISION comments</p> <ol style="list-style-type: none"> <li>1. <b>Is the manuscript important for scientific community?</b> (Please write few sentences on this manuscript)</li> <li>2. <b>Is the title of the article suitable?</b> (If not please suggest an alternative title)</li> <li>3. <b>Is the abstract of the article comprehensive?</b></li> <li>4. <b>Are subsections and structure of the manuscript appropriate?</b></li> <li>5. <b>Do you think the manuscript is scientifically correct?</b></li> <li>6. <b>Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.</b></li> </ol> <p><b><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></b></p>	<ol style="list-style-type: none"> <li>1. <b>Yes. Some novelty is there in the manuscript.</b></li> <li>2. <b>Yes</b></li> <li>3. <b>Yes</b></li> <li>4. <b>Yes</b></li> <li>5. <b>Yes</b></li> </ol> <ol style="list-style-type: none"> <li>1. <b>No</b>, The introduction section is not sufficient, so I strongly suggest you add the latest articles listed below to enrich the literature section: <ul style="list-style-type: none"> <li>• Stochastic frequency analysis of laminated composite plate with curvilinear fiber. <i>Mechanics of Advanced Materials and Structures</i>, 29(6), 933-948.</li> <li>• Uncertainty quantification in buckling strength of variable stiffness laminated composite plate under thermal loading. <i>Composite Structures</i>, 275, 114486.</li> <li>• Vibration and uncertainty analysis of functionally graded sandwich plate using layerwise theory. <i>AIAA Journal</i>, 60(6), 3402-3423.</li> <li>• Stochastic aeroelastic analysis of laminated composite plate with variable fiber spacing. <i>Journal of Composite Materials</i>, 55(30), 4527-4547.</li> </ul> </li> </ol>	
<p><b>Minor</b> REVISION comments</p> <ol style="list-style-type: none"> <li>1. <b>Is language/English quality of the article suitable for scholarly communications?</b></li> </ol>	<p>Yes</p>	
<p><b>Optional/General</b> comments</p>	<p>Comments to the Author:</p> <p>This paper presents the results to quantify the uncertainty of the Buckley-Leverett model. The presented results will be surely helpful for the researchers, who are working in a similar domain to figure out the effect of uncertain properties on water saturation during the secondary oil recovery process. This paper can be accepted after a few suggested modifications:</p> <ol style="list-style-type: none"> <li>2. Citations are not in sequence (reference [20] is the first citation in the manuscript), please make them proper as per journal guidelines. Write proper justification if you have followed</li> </ol>	

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	<p>some standard, otherwise, correct it.</p> <p>3. In Figure 5, please reduce the size of the legend box.</p> <p>4. Figure 7 is not cited in text.</p> <p>5. As the Monte Carlo Size is quite small, need to check the convergence of MCS results. Perform the MCS convergence test and add the results to the manuscript. From the given data, the convergence of data is not clear. Suggestion: check Table no. 9 (Vibration and uncertainty analysis of functionally graded sandwich plate using layerwise theory. <i>AIAA Journal</i>, 60(6), 3402-3423.)</p> <p>6. Please check the manuscript thoroughly and correct it for grammar check.</p>	
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**PART 2:**

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

**Reviewer Details:**

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