

**Review Form 3**

Journal Name:	<a href="#">Journal of Geography, Environment and Earth Science International</a>
Manuscript Number:	Ms_JGEESI_127820
Title of the Manuscript:	PRELIMINARY STUDY OF THE IMPACT OF BED SURFACE ROUGHNESS ON FLOW TURBULENCE AND SEDIMENT GRAINS TRANSPORT: INFERENCES FROM LABORATORY FLUME EXPERIMENT.
Type of the Article	

**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.		
Is the title of the article suitable? (If not please suggest an alternative title)		
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.		
Is the manuscript scientifically, correct? Please write here.		
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.		

**Review Form 3**

<p>Is the language/English quality of the article suitable for scholarly communications?</p>		
<p><b>Optional/General</b> comments</p>	<p>This study investigates the impact of bed surface roughness on flow turbulence and sediment transport. By comparing two artificial bed surfaces—fine sand and a rough gravelly bed—the researchers observed that the gravelly bed generated higher turbulence and altered flow velocity profiles. By improving this article in different aspects, it can be published in this journal. I hope the comments will help the author to improve the manuscript.</p> <ol style="list-style-type: none"> <li>1- The English language needs to be checked carefully in the revision stage because of many careless mistakes in many positions.</li> <li>2- The quality of figures needs to be improved in the revision stage.</li> <li>3- The abbreviation table shall be added before the introduction.</li> <li>4- The introduction needs to emphasize the research work with a detailed explanation of the whole process considering past, present, and future scope. How does the present study give more accurate results than previous studies? It needs to be strengthened in terms of recent research in this area with possible research gaps. It is strongly recommended to add recent literature such as : Water and environment journal, 34(2), pp.291-304 (<a href="https://doi.org/10.1111/wej.12462">https://doi.org/10.1111/wej.12462</a>); Iranian Journal of Soil and Water Research, 50(1), pp. 135-147 (doi: 10.22059/ijswr.2018.252260.667851; Iranian Journal of Science and Technology, Transactions of Civil Engineering, 43, pp.167-177, (<a href="https://doi.org/10.1007/s40996-018-0126-z">https://doi.org/10.1007/s40996-018-0126-z</a>).</li> <li>5- How was the number of tests determined? Which experimental design method was employed? The authors can use this essay: <a href="#">Innovative Infrastructure Solutions</a>, Volume 8, article number 10, (2023) (<a href="https://doi.org/10.1007/s41062-022-00977-8">doi.org/10.1007/s41062-022-00977-8</a>).</li> <li>6- The Acoustic Doppler Velocimetry method should be replaced with a Velocity Measurement Method. Various alternatives, such as image processing, should be briefly explained, (The following specific articles should be noted in the revision stage of <a href="#">Journal of Water Process Engineering Volume 60</a>, 105198 (<a href="https://doi.org/10.1016/j.jwpe.2024.105198">doi.org/10.1016/j.jwpe.2024.105198</a>); <a href="#">Applied Water Science</a>, 14, 38 (<a href="https://doi.org/10.1007/s13201-023-02091-1">doi.org/10.1007/s13201-023-02091-1</a>); <a href="#">Numerical Methods in Civil Engineering</a>, 8-3 (2024) 01-09 ( <a href="https://doi.org/10.52547/NMCE.2303.1022">10.52547/NMCE.2303.1022</a>); <a href="#">Ships and Offshore Structures</a> (<a href="https://doi.org/10.1080/17445302.2023.2247125">doi.org/10.1080/17445302.2023.2247125</a>), and the rationale for the chosen method should be clearly described.</li> <li>7- Do the authors think that the present study is an improvement when compared to other studies? The authors need to indicate such points for a broad range of readers.</li> <li>8- The conclusion also needs to be rewritten. Include the following: new concepts and innovations demonstrated in this study, a summary of findings, a comparison with findings by other workers, and a concluding remark.</li> <li>9- Please mention your study limits and suggest some future research topics.</li> </ol>	

**Review Form 3**

**PART 2:**

	<b>Reviewer's comment</b>	<b>Author's comment</b> <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>
<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:**

Name:	<b>Mahmood Rahmani Firozjai</b>
Department, University & Country	<b>School of Civil Engineering, College of Engineering, University of Tehran, Iran</b>