

**Review Form 1.7**

Journal Name:	<b>Current Journal of Applied Science and Technology</b>
Manuscript Number:	<b>Ms_CJAST_111229</b>
Title of the Manuscript:	<b>Performance Assessment of Solar Parabolic Trough Collector with Varied Receiver Tube Materials</b>
Type of the Article	<b>Original Research Article</b>

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**PART 1: Review Comments**

	<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)
<p><b>Compulsory</b> REVISION comments</p> <p><b>1. Is the manuscript important for scientific community?</b> (Please write few sentences on this manuscript)</p> <p><b>2. Is the title of the article suitable?</b> (If not please suggest an alternative title)</p> <p><b>3. Is the abstract of the article comprehensive?</b></p> <p><b>4. Are subsections and structure of the manuscript appropriate?</b></p> <p><b>5. Do you think the manuscript is scientifically correct?</b></p> <p><b>6. Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.</b></p> <p><b>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</b></p>	<p>The introduction provides a good overview of the significance of renewable energy, specifically concentrating solar collectors. The objectives of the study are well-defined, focusing on experimental investigation of a solar parabolic trough collector with manual sun tracking. The description of the parabolic trough's construction and the use of a highly polished aluminium sheet is clear. The inclusion of two different materials for the receiver tubes (stainless steel and glass-coated copper) is a valuable aspect of the study. The methodology for tracking the parabolic trough and evaluating performance based on temperature differences is clear. The evaluation of instantaneous efficiency is a key aspect of the study.</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>Yes</p> <p>No</p> <p><b>Additional comments:</b></p> <ul style="list-style-type: none"> <li>➤ The authors should include a brief literature review to contextualize the current study within existing research on parabolic trough collectors.</li> <li>➤ Consider expanding on the specific parameters that will be investigated and their relevance to the overall performance of the collector.</li> <li>➤ However, more details on the specific materials and manufacturing processes would be useful for readers interested in replicating the experiment.</li> <li>➤ The use of water as a working fluid and testing with different mass flow rates is appropriate for assessing collector performance. Include information on the rationale behind choosing these specific flow rates and any considerations regarding the potential trade-offs.</li> <li>➤ However, provide more information on the characteristics of these materials and why they were selected. Also, elaborate on the advantages and disadvantages of each material.</li> <li>➤ It would be beneficial to detail the instrumentation used for temperature measurements and how potential sources of error were addressed.</li> <li>➤ The results indicate a clear performance difference between the glass-coated copper tube and the stainless-steel tube. Further discussion on the specific factors contributing to this difference, such as convective heat transfer losses, is needed for a comprehensive understanding.</li> <li>➤ It would be valuable to discuss how the efficiency values were calculated and provide insights into the practical implications of the observed differences.</li> <li>➤ The conclusion is concise and summarizes the key findings. Consider adding recommendations for future research or practical applications based on the study's outcomes.</li> </ul>	
<p><b>Minor</b> REVISION comments</p> <p><b>1. Is language/English quality of the article suitable for scholarly communications?</b></p>	<p>No, the English language is very poor. The manuscript should be rewritten and rechecked by the English speakers.</p>	

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Optional/General comments	-NA-	
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**PART 2:**

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

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