

Review Form 1.7

Journal Name:	Current Journal of Applied Science and Technology
Manuscript Number:	Ms_CJAST_112739
Title of the Manuscript:	IDENTIFYING OPTIMAL CONCEPTUAL DESIGN OF A BRIQUETTING MACHINE
Type of the Article	

## Review Form 1.7

### 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> <p>1. <b>Is the manuscript important for scientific community?</b> (Please write few sentences on this manuscript)</p> <p>2. <b>Is the title of the article suitable?</b> (If not please suggest an alternative title)</p> <p>3. <b>Is the abstract of the article comprehensive?</b></p> <p>4. <b>Are subsections and structure of the manuscript appropriate?</b></p> <p>5. <b>Do you think the manuscript is scientifically correct?</b></p> <p>6. <b>Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.</b></p> <p><b><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></b></p>	<p>1. The manuscript could be important for scientific community if the authors accorded more space for the model rather than numerical computation since tables belong to the appendix. Indeed, they ought to justify the choice of the fuzzy COPRAS method to obtain the optimal design concept of a briquetting machine.</p> <p>2. The title of the article is suitable.</p> <p>3. The abstract of the article is comprehensive.</p> <p>4. The structure of the manuscript is inappropriate. In fact, authors must add sections on fuzzy set theory and fuzzy COPRAS method explaining its different steps. The literature review should focus on ranking problematic exposing different MADM methods in a fuzzy context dealing with a hierarchical structure of criteria.</p> <p>5. Authors should make some modifications so the manuscript will be scientifically correct.</p> <ul style="list-style-type: none"><li>• In eq (2), is it 0.121 or 1.121?</li><li>• Add the normalization (<math>S_{max}</math>, <math>S_{min}</math>) as well as the <math>(S_{min})^{-1}</math> and <math>Q_m</math> formula.</li><li>• Add Fuzzy Set Theory in keywords.</li></ul> <p>6. References are recent but not sufficient. In the introduction, in last paragraph, add references of the mentioned methods (ARAS, WDM, AHP, TOPSIS, VIKOR).</p> <p>I suggest to add references on fuzzy hierarchical MADM methods. For instance:</p> <ul style="list-style-type: none"><li>• Ghram, M., Moalla Frikha H., (2022). Multiple Hierarchically Structured Criteria in ARAS Method Under Fuzzy Environment, International Journal of Fuzzy System Applications (IJFSA), Vol. 11, number 1, pp. 1-19, DOI: 10.4018/IJFSA.315013.</li><li>• Guha, D., &amp; Banerjee, D. (2019). On Some Inner Dependence Relationships in Hierarchical Structure under Hesitant Fuzzy Environment. In International Summer School on Aggregation Operators, 95–105.</li><li>• Wu, C. R., Chang, C. W., &amp; Lin, H. L. (2008). A Fuzzy ANP-Based Approach to Evaluate Medical Organizational Performance. Information and Management Sciences, 19 (1), 53–74.</li><li>• Yang, X., &amp; Wang, Z. J. (2020). Intuitionistic Fuzzy Hierarchical Multi-Criteria Decision Making for Evaluating Performances of Low-Carbon Tourism Scenic Spots. International Journal of Environmental Research and Public Health, 17 (17), 6259.</li></ul>	<p>The contribution of this article is the application of COPRAS as a MADM model using triangular fuzzy membership function in order to obtain the optimal design concept of a briquetting machine considering four conceptual designs of the machine</p> <p>Authors feel sections on fuzzy set are not necessary because they are available in order articles where the bone of contention is on theory. As stated above the paper is solely based on the applicability of the Fuzzy COPRAS to determination of optimal conceptual design from a set of design alternatives</p> <p>Agreed. It is 0.121. The 0.121 is corrected in the manuscript</p> <p>Three of the suggested articles have been added</p>
<p><b>Minor</b> REVISION comments</p> <p>1. <b>Is language/English quality of the article suitable for scholarly communications?</b></p>	<p>The English quality of the article could be improved for scholarly communications. I invite the authors to rectify:</p> <ul style="list-style-type: none"><li>• In page 13, in line 6, <b>This</b>, starts with capital letter. In line 7, <b>In</b>, starts with capital letter.</li><li>• In page 14, in last paragraph, line 6, it <b>is</b> ...</li><li>• In page 15,” This separation ... a role in <b>the</b> determination ... alternatives.”</li><li>• In page 15,” In essence, the fuzzy COPRAS .. <b>for the</b> assessment ...concept. This is possible <b>thanks to</b> the ability ...beneficial features.</li><li>• In conclusion, “However, analyzing ... from the <b>aggregation</b> of...the optimal design.”</li><li>• In conclusion, in last sentence, Efforts, starts with capital letter.</li><li>•</li></ul>	<p>All corrected</p>
<p><b>Optional/General</b> comments</p>	<p>I suggest, as a perspective, to develop fuzzy hierarchical COPRAS method.</p>	

[Review Form 1.7](#)

**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>	