

Review Form 1.7

Journal Name:	Advances in Research
Manuscript Number:	Ms_AIR_111836
Title of the Manuscript:	Using Multi-Criteria Decision-Making Methods to Assess the Positioning of Rainwater Harvesting Systems in University Campuses
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>Compulsory REVISION comments</p> <ol style="list-style-type: none"> 1. Is the manuscript important for scientific community? (Please write few sentences on this manuscript) 2. Is the title of the article suitable? (If not please suggest an alternative title) 3. Is the abstract of the article comprehensive? 4. Are subsections and structure of the manuscript appropriate? 5. Do you think the manuscript is scientifically correct? 6. Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form. <p><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></p>	<ol style="list-style-type: none"> 1. The idea of the research is a good topic for application in the water resources engineering theme. The research is a practical application and give others point a view for selecting the Rainwater Harvesting (RWH) system. 2. Please consider the title as : Application of The Technique for Order of Preference by Similarity to Ideal Solution (TOPSIS) Method to Assess the Positioning of Rainwater Harvesting Systems in University Campuses 3. Yes, but it needs revision in the abstract row 3, it should be written: In this research, the TOPSIS method is suggested as one of many analyses on the Multi-Criteria Decision-Making method 4. The subsection material and methods should be added 2.1 as Data Input and 2.2 TOPSIS Method 5. there are many corrections: <ol style="list-style-type: none"> a. Please refer to the references that the author uses equation; b. Please put an equation number order in the following equations; c. “Tables should be explanatory enough to be understandable without any text reference. Double spacing should be maintained throughout the table, including table headings and footnotes. Table headings should be placed above the table. Footnotes should be placed below the table The weight vector W and the normalized decision matrix $R = (r_{ij})_{m \times n}$ are multiplied to obtain the weighted normalized decision matrix $T = (t_{ij})_{m \times n}$ such that $t_{ij} = r_{ij} \times w_j, i = 1, \dots, m, j = 1, \dots, n$. The positive and negative ideal solutions are determined from the matrix $T = (t_{ij})_{m \times n}$. The positive ideal solution A^+ maximizes the benefit and minimizes the cost. Similarly, the negative ideal solution A^- minimizes the benefit and maximizes the cost. Each alternative is assessed in relation to their distances to the positive and negative ideal solutions, d_i^+ and d_i^-. The optimal alternative is determined by ranking the similarities to the worst solution $S_i^*, i = 1, \dots, m$ calculated as follows.” Please delete the sentences in the red color. That was the template of the manuscript document; d. Please put the reference for the weight factor W that you use in this paper. 6. Please put more references and write on the introduction to relate the topic and method Here I put some references: Assari A, Mahesh T, Assari E (2012) Role of public participation in sustainability of historical city: usage of TOPSIS method. Indian J Sci Technol 5(3):2289–2294 Hwang CL, Lai YJ, Liu TY (1993) Anew approach formultiple objective decision making. Comput Oper Res 20(8):889–899. https://doi.org/10.1016/0305-0548(93)90109-v Hwang CL, Yoon K (1981) Multiple attribute decision making: methods and applications. Springer, New York Ic Y (2012) An experimental design approach using TOPSIS method for the selection of computerintegrated manufacturing technologies. Robot Comput-Integr Manuf 28(2):245–256 Kraujalien'e L (2019) Comparative analysis of multicriteria decision-making methods evaluating the efficiency of technology transfer. Bus Manage Educ 17:72–93 Robbi Rahim AP (2018) Technique for order of preference by similarity to ideal solution (TOPSIS) method for decision support system in top management. Int J Eng Technol Sharma D, Sridhar S, Claudio D (2020) Comparison of AHP-TOPSIS and AHP-AHP methods in 	<p>a</p>

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	<p>multi-criteria decision-making problems. Int J Indus Syst Eng 34(2):203. https://doi.org/10.1504/ijise.2020.105291</p> <p>Sianaki OA (2020, May 29) TOPSIS: Technique for order preference by similarity to ideal solution. Retrieved from Maths Works File Exchange: https://www.mathworks.com/matlabcentral/fileexchange/57143-topsis-technique-for-order-preference-by-similarity-to-ideal-solution</p> <p>Uzun, B., D. O. Uzun, and B. Duwa. 2021. "Fuzzy logic and fuzzy based multi criteria decision analysis." In Application of multi-criteria decision analysis in environmental and civil engineering, edited by D. Uzun Ozsahin, H. Gökçekuş, B. Uzun, and J. LaMoreaux, 1st ed. 47–56. Cham, Switzerland: Springer.</p> <p>YahyaM, Gökçeku,s H, Ozsahin D, Uzun B (2020) Evaluation of wastewater treatment technologies using TOPSIS. Desalin Water Treat 177:416–422. https://doi.org/10.5004/dwt.2020.25172</p>	
<p>Minor REVISION comments</p> <p>1. Is language/English quality of the article suitable for scholarly communications?</p>	<p>Area-1: Student Life Center Roof is found as the most suitable location with a similarity coefficient of $S_1^*=0.6789$, whereas the other alternatives "Area-2: Faculty of Theology Car Parking Area" and "Area-3: Student Life Center Car Parking Area" have similarity coefficients $S_2^*=0.3504$ and $S_3^*=0.2772$, verifying the result.</p> <p>The S_1^* should be written as S_1^* and also for S2 and S3</p>	
<p>Optional/General comments</p>		

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?	(If yes, Kindly please write down the ethical issues here in details)	

Reviewer Details:

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