Review Form 3

Journal Name:	**Asian Research Journal of Mathematics**
Manuscript Number:	**Ms_ARJOM_130006**
Title of the Manuscript:	**Quasi-Matroid on connectivity system**
Type of the Article	**Short Research Article**

<mark>PART 1:</mark> Comments

	Reviewer's comment	Author's Feedback *(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)*
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.	This manuscript presents a significant advancement in the field of combinatorial mathematics by introducing the concept of quasi-matroids on connectivity systems and their relationship with linear decomposition. The results bridge seemingly unrelated concepts, such as linear tangles and quasi-matroids, offering new perspectives and methodologies for analyzing connectivity systems. By extending classical matroid theory, this study provides a robust framework with potential applications in optimization, graph theory, and network analysis. Its insights and foundational theories pave the way for further exploration in related fields, enriching the scientific community's understanding of abstract mathematical structures.	
Is the title of the article suitable? **(If not please suggest an alternative title)**	The Interplay Between Quasi-Matroids and Connectivity Systems	

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.	The abstract provides a concise overview of the paper, but it can be improved to better reflect the significance, findings, and potential implications of the research. Here are some suggestions for refinement:
	
	Additions:
	
	1. **Research Gap:** Briefly mention the gap in the current literature that this work addresses.
	   o For example: "While matroids are well-established in various disciplines, the concept of quasi-matroids in connectivity systems remains underexplored."
	2. **Main Contributions:** Include a clearer summary of the main findings or contributions of the paper.
	   o For example: "This study establishes a novel connection between quasi-matroids and linear tangles, providing a framework for understanding their role in connectivity systems."
	3. **Implications:** Highlight the broader implications of the findings for other fields such as optimization, graph theory, or network analysis.
	
	Deletions:
	
	1. **Repetition:** Avoid repeating information already stated in the introduction, such as the broad definition and applications of matroids, unless directly relevant to the abstract.
	2. **General Statements:** Streamline the abstract by removing general or overly vague statements that do not directly convey the unique contributions of this paper.	

Is the manuscript scientifically, correct? Please write here.	Yes	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.	No	
Is the language/English quality of the article suitable for scholarly communications?	The language quality of the article is generally suitable for scholarly communication, but it could benefit from some refinements to improve clarity, readability, and flow. While the technical terminology is appropriate for the field, the manuscript includes some long, complex sentences and minor grammatical inconsistencies that may hinder comprehension for a broader audience. Here are some suggestions for improvement: 1. **Simplify Complex Sentences:** Break down overly long or complicated sentences into shorter, more focused ones to improve readability. o Example: The sentence in the introduction discussing "graph width parameters" can be simplified for better clarity. 2. **Grammar and Syntax:** Address minor grammatical issues, such as inconsistencies in verb tense, punctuation, or article usage (e.g., "a connectivity system" vs. "the connectivity system"). 3. **Consistency in Terminology:** Ensure consistent use of terms and notation throughout the paper. For instance, use the same phrasing for "quasi-matroid" and "quasi-matroids" consistently. 4. **Avoid Repetition:** Refrain from repeating definitions or concepts already explained in earlier sections. 5. **Enhance Scholarly Tone:** Use precise, concise phrasing that is typical of high-quality academic writing.	
Optional/General comments		

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	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)*	

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